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COMBAT PHOTOGRAPHY

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COMBAT PHOTOGRAPHY

Signal Corps Historical Section, Washington
Special Activities Branch
Office of the Chief Signal Officer

November 1945

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TABLE OF CONTENTS

Page No.

LIST OF ILLUSTRATIONS v

LIST OF TABLES AND GRAPHS vii

INTRODUCTION ix

CHAPTER I ORGANIZATION AND TRAINING FOR COMBAT PHOTOGRAPHY. 1

- A. Activity Prior to World War I. 1
- B. The Pre-War Period. 6
- C. Training for World War II. 11
- D. Activation and Deployment. 15
- E. Criticism. 17
- F. Conclusions. 21

CHAPTER II COMBAT PHOTOGRAPHIC EQUIPMENT. 26

- A. Early Equipment. 26
- B. Still Photographic Equipment. 28
- C. Motion Picture Photographic Equipment. 34
- D. Accessories and Supplies. 37
- E. Field Laboratories. 42
- F. Field Expedients. 43
- G. Allied and Enemy Equipment. 45
- H. Conclusions. 47

CHAPTER III OPERATIONS OF COMBAT PHOTOGRAPHIC UNITS. 52

- A. General. 52
- B. Personnel and Processing. 55
- C. Modus Operandi. 56

Page No.

D. Combat Coverage by Commercial Companies. 57
E. Reports from Theaters of Operations. 58
F. Aerial Photography. 60
G. Processing. 63
H. Transmittal. 65
I. Security. 67
J. Enemy Combat Photography. 69

CHAPTER IV EXPERIENCES IN NORTH AFRICA AND ITALY. 73

A. General. 73
B. Operations Commence. 76
C. Hazards of Combat Photography. 86

CHAPTER V EXPERIENCES IN PACIFIC AREA AND CBI. 88

A. General. 88
B. Making Feature Film in the Pacific. 88
C. China-Burma-India Experiences. 110
D. Adventures in Other Areas. 114

CHAPTER VI EXPERIENCES IN EUROPEAN THEATER OF OPERATIONS. 117

A. General. 117
B. Statistics on Still Picture Production in ETO. 125
C. Statistics on Motion Picture Production in ETO. 139

			Page No.
CHAPTER VII		RECEPTION AND USE OF COMBAT PHOTOGRAPHY IN USA.	152
	A.	General.	152
	B.	Distribution of Combat Stills and Motion Pictures.	158
	C.	Uses of Combat Photography.	159
	D.	Appraisal of Combat Photography.	162
CHAPTER VIII		IF WAR SHOULD COME AGAIN.	167
LIST OF APPENDICES.			173

LIST OF ILLUSTRATIONS

Figure No.		Following Page
1.	Signal Corps Photographic Laboratory.	7
2.	Training in Combat Photography, 1933.	9
3.	Training at Signal Corps Photographic Laboratory.	11
4.	Training at Signal Corps Photographic Center.	15
5.	Members of 161st Signal Photographic Company in Training.	17
6.	Camera PH-47-( ) and other Components of Camera Equipment PH-104.	28
7a.	Camera PH-324, as used by Combat Photographers.	29
7b.	Photographic Set PH-261, in use.	29
8.	Photographic repairmen at work.	31
9.	Combat Camera PH-501/PF.	33
10a.	Combat Photographers in Germany.	35
10b.	Combat Photographic Officer in North Africa.	35
10c.	35mm Motion Picture Camera PH-530.	35
11a.	Laboratory Darkroom AN/TFQ-7, exterior.	42
11b.	Laboratory Darkroom AN/TFQ-7, interior.	42
12a.	Darkroom PH-392.	43
12b.	Darkroom PH-392 in use, Italy.	43
13.	Processing under field conditions.	56
14.	Improvised processing set-up.	56
15.	Improvised laboratory, New Caledonia.	56

[redacted]

Figure No.		Following Page
16.	Plane used for ground reconnaissance photography.	63
17.	Combat Cameraman making aerial photographs.	63
18.	Combat Cameraman with Fifth Army, Italy.	77
19.	Combat Photographic Officer using Camera PH-47-( ) on New Britain.	90
20a.	Trailer K-19 photographic laboratory, Munda, New Georgia.	103
20b.	Interior of trailer laboratory in use at Bouganville.	103
21.	Injured cameraman in Saipan.	113
22a.	Combat Photographer in Tokyo.	115
22b.	Motion Picture Review Board at Controls of Multiple Film Selector.	157
23.	Tape produced by Multiple Film Selector.	160
24.	Print washing room, photographic laboratory, Pentagon.	162

[redacted]

~~RESTRICTED~~

LIST OF TABLES AND GRAPHS

	Following Page
Photographic Training, Officers and Enlisted Personnel, 1942 through 1945.	12
Other Photographic Training.	12
Photographic Training, 1942 through 1945 (Graph)	12
Disposition of Camera Crews, North African Theater of Operations.	72
Photographic Combat Coverage of New Britain Operation.	87
Total Combat Photography in ETO (Graph).	124
Combined Battalion Distribution of Prints, June 1943 through August 1945.	129
Processing of Negatives in London Still Labs, June 1943 through August 1945 (Graph).	134
Processing of Prints in London Still Labs, June 1943 through August 1945 (Graph).	134
Processing of Negatives in Paris Still Laboratory, November 1944 through August 1945 (Graph).	136
Processing of Prints in Paris Still Laboratory, November 1944 through August 1945 (Graph).	136
Combined Production of Negatives, all 3908 Signal Service Battalion Laboratories, June 1943 through August 1945 (Graph).	139
Combined Production of Prints, all 3908 Signal Service Battalion Laboratories, June 1943 through August 1945 (Graph).	139

~~RESTRICTED~~

Following Page

Distribution of Motion Picture Film, In Footage to Organizations, January 1944 through August 1945. 140

Footage of Motion Picture Film Negative sent to Washington from ETO (Graph). 140

Motion Picture Production Totals, 3908 Signal Service Battalion (GHQ Pictorial) June 1943 through August 1945 (Graph). 141

Motion Picture Footage Processed in England. 145

Motion Picture Footage Processed in France. 147

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INTRODUCTION

Although the old saying that "Generals die in bed," has been many times disproven in World War II, it is manifestly true that no one man can be on two or more battlefields at the same time. Yet it is equally true that the events of each battle are of prime importance to the men who plan the nation's campaigns. The answer has always been to bring the battle report back to headquarters as rapidly and vividly as possible: by runner, wig-wag, telegraph, telephone, radio and written report -- and, latterly, by photograph.

It has long been stated that one picture is worth ten thousand words, for a photograph gives the utmost in information with the greatest possible speed. Hundreds of words of description of how an item of equipment performed under battle conditions are expressed by a single picture or reel showing the apparatus in use. A lengthy description of the enemy's tactical methods may often be expressed more clearly -- and always more briefly -- by a film sequence.

The photograph, whether still or motion, has an additional advantage over the oral or written report. It is more impersonal; it reflects to a lesser extent the specialized interest of the soldier making the report. Pictures taken, for example, to show troops landing on a foreign shore, will show not only the performance of the landing craft, but also the use of small arms and communications equipment, the condition of clothing, and various other matters of interest to the staff, technical services and tactical command.

Combat photography may be defined as "still or motion photo-

[redacted]

graphy undertaken under battle conditions". More broadly, it includes a variety of subjects, not all of tactical nature, such as supply problems, minefield clearance, evacuation and treatment of wounded, results of friendly and enemy artillery and bombardment, performance of friendly and enemy weapons, and a quantity of other information.

The uses to which combat photography has been put are so manifold that it is impossible to draw a sharp distinction between it and other categories. Combat stills and motion pictures are used for the immediate combat situation, for intelligence, for strategic and tactical planning, as well as public relations purposes in periodicals and newsreels; they are used for training; for morale; for developmental engineering work.

An idea of the scope of combat photography can be had from the list of subjects to be photographed for ASF, which appears as Inclosure 1 to War Department Memorandum No. S105-31-43, dated 28 August 1943. The Chief Signal Officer was notified at least monthly of any changes desired in the list.[1] It should be noted that photography of other activities was not prohibited by their omission from the list, but might be handled at the discretion of the theaters. A similar list from Army Ground Forces suggested that pictures taken in training areas in theaters include:[2] commando training, street fighting, antiaircraft defense, landing operations, beach defense, bombing raids, captured armament, defense of airdromes, road blocks, tank traps and cantonments. In battle areas, it was suggested that pictures include: battle field recovery, hostile camouflage methods, hostile armor and armament, hostile transport, operations of our troops, shelling and bombing, and such miscellaneous combat as tank and patrol operations. The value of showing the disaster attendant on the use of incorrect battle technique was stressed.

These requests were forwarded to photographic units in the field, and the required footage was made.

The relationship between combat films and training films is extremely close, for shots of troops in action, or performing tasks behind the lines in theaters of operation, were widely used to train soldiers who might expect to encounter similar situations. For example, early in 1943, the Corps of Engineers requested that a training film be made in North Africa giving complete coverage of the locating and disarming of hostile mine fields.[3] This film was used for training troops in such work, right where the pictures were made, as well as in other areas.

Use of combat photography by the higher echelons is indicated by the following statement of policy on combat motion pictures as concerning the Chief of Staff, dated 20 March 1943:

> To bring the war to the Chief of Staff -- this covers a multitude of activities. Not only is the Chief of Staff interested in the 21 branches of the service and that they function properly, the Chief of Staff and his staff are interested in combat films both of our army and those of enemy. In particular, the Chief of Staff is interested in the effectiveness of those of the enemy. In the final analysis, motion pictures must bring to his staff the war that is now spread all over the world.[4]

It has, in some instances, been impossible to draw a definite line of demarcation between combat photography and military photography of other sorts. The combat photographer who is attached to a task force may be taking front-line combat pictures one day, and making medical pictures in a behind-the-lines hospital or shots of ceremonies at headquarters the next. One darkroom man in the photographic laboratory may be developing combat film, while another processes identification pictures or protraits in no way connected with true combat. For the purpose of this monograph, however, any work done by a combat photographic organization is considered combat photography, with stress placed upon the coverage of action and as little space as possible devoted to activities which are clearly not combat connected.

Information has not been available on every combat photographic unit, nor upon all the activities of any unit; considerations of time and space would have prevented the inclusion of much material of this sort had it been accessible.

In Chapter I, some space has been devoted to photographic training in the two decades preceding World War II. The reason for this is two-fold: the experience gained during that period was helpful in forming training policies and practices during the recent war; this information is to be found in no other place. Training in World War II is discussed not only in this monograph, but is also covered in two others.[5] The complete story of the organization of every photographic unit, company and detachment has not been included, although certain organizations are discussed in the chapter; the strengths of all on Pearl Harbor Day, D-Day, VE-Day, and VJ-Day, and the theaters in which they served will be found in Appendix C. More detailed stories appear in Theater Histories and the histories of the various organizations concerned.

Chapter II tells of Signal Corps combat photographic equip-

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ment, with emphasis upon that which would be used by the photographer or darkroom man in the field, Standard studio and processing laboratory equipment is omitted as beyond the scope of this monograph; descriptions of it can be found in various Signal Corps catalogs.

Nor could the experience of every photographic organization be detailed in the chapters dealing with overseas operations. It was necessary to cover experiences of all types, including problems of photography, supply, equipment and personnel, but reports from each theater did not always cover all these categories. Chapter III, therefore, is devoted to a general picture of overseas operations, and includes material germane to all theaters. Chapter IV covers North Africa and Italy, and is concerned largely with organizational matters. Chapter V deals with the Pacific areas, and illustrates typical combat coverage matters encountered in the making of a feature film. Chapter VI is devoted to the European Theater, and presents, in addition to the organizational picture, a study of processing on a large scale. Where problems of equipment are peculiar to a theater, these have been included in the appropriate chapters.

The handling accorded combat stills and films in the United States is described in Chapter VII.

Chapter VIII gives the authors' recommendations on combat photography "if war should come again."[6] These recommendations are based largely upon the opinions expressed by combat cameramen and photographic officers in various theaters, and upon progress which is viewed as possible during peace-time, when development may receive a greater proportion of attention, and procurement a lesser proportion,

[redacted]

than in war time.

The entire monograph was prepared with the thought that it would be of use in the event of another mobilization. Material was chosen for inclusion with this in mind.

REFERENCES FOR INTRODUCTION

1. Memo for AGF from APS, file SPSHP 004.52-Combat Photography for SOS (2-10-43). (See Appendix A)
2. Ltr to CG, SOS, fr CG, AGF, 21 Oct 42, "Combat Photography for AGF", File 413.56 - GNRQT/19773 (10-21-42).
3. Memo for Asst Chief of Staff, G-3, fr APS, dtd 31 March 1943.
4. Untitled, unsigned memo dtd 20 Mar 43 fr APS Semi-active files.
5. Study of Signal Corps Officer Schooling, 1939 - 1944, pp. 160 - 181, and Study of Signal Corps Enlisted Schooling, 1939 - 1944, pp. 124 - 147.
6. One of the authors has had wide experience as a technical writer and editor for photographic publications.

[redacted]

CHAPTER I

ORGANIZATION AND TRAINING FOR COMBAT PHOTOGRAPHY

A. Activity Prior to World War II.

Since the invention of photography in 1839, picture-taking has played a part in every war in which the United States has been engaged, but in World War II the emphasis placed upon it was far greater than ever before. Photographs were made by civilians in the field as long ago as the Civil War; they were made on a large scale in World War I, although the trained photographic personnel then available amounted to only 92 officers and 498 enlisted men. Of this number 54 officers and 418 men were in France, engaged principally in laboratory work, or assigned to combat divisions. Each unit so assigned consisted of one motion picture operator, one still photographer, and two "helpers".[1] Approximately four times as many photographers were trained for combat duty in World War II.

Yet, despite the small number of Signal Corps photographers in the first World War, the Army has on file some 165,000 still pictures and 589,197 feet of motion pictures covering that conflict.[2] Some of this material was made by photographers attached to such organizations as the Engineers and Air Corps as well as the Signal Corps, and actually represented only a minor portion of the pictorial information made available to the public, which received the major part from pictures made by commercial newsreel and newspaper syndicate services.

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During the "long armistice" from 1918 to 1939, when Germany renewed her interrupted attempt at achieving world supremacy, higher echelons in the United States appear to have devoted comparatively little thought to combat photography. Training had little to do with that activity, most of the stress being laid upon teaching the procedures necessary for the production of still and motion pictures for publicity and training purposes.

In World War I, U. S. Army photos were required "principally for a graphic pictorial history," and secondarily for public information, and tactical artillery and aerial use.[3] To provide the necessary photographers, two schools were opened: the United States School of Photography (land) at Columbia University, New York, N. Y., on 1 January 1918; the United States School of Aerial Photography at the Eastman Kodak Co., Rochester, N. Y., six weeks later.[4]

The land school provided a six weeks' course for commissioned and enlisted personnel in still and motion picture photography, devoting the final week to work in mock trenches of nearby camps. Upon graduation, the most competent enlisted men were recommended for commissions as second lieutenants. Graduates were formed into units, each consisting of a lieutenant, a sergeant and a private or pfc, for assignment to divisions, the officers and non-coms being specialists in either still photography and laboratory or motion picture photography. Other types of photographic teams were also formed for larger units, laboratories, and special assignments.

The aerial school offered a five weeks' photographic course, with a concurrent sub-course in camera repair work, so that each photo unit might have its own repairman. It graduated approximately 2500 photographers in its six months of existence, with enrollment so heavy at times that classes were held to 700 students, the overflow receiving military training at Madison Barracks, N. Y., until vacancies occurred. When the Air Service was separated from the Signal Corps in May, 1918, the Rochester school passed from Signal Corps control.

On 2 October 1919, the Signal School at Camp Alfred Vail (now Fort Monmouth) offered a course in still photography, with instruction in motion picture photography anticipated.[3] All photographic training at this school was discontinued in 1926, when instruction in radio, telephone, telegraph and meteorology were substituted,[5] only to be reinstated as a four weeks' course in 1927. A proposal was adopted in 1928 to lengthen the course to nine months, in order to expand the motion picture portion of the training. Personnel who completed the course were sent to the Signal Corps Photographic Laboratory, Washington, D. C., for "a post graduate course in the practical operation of a large photographic laboratory." [6] Upon completion of this work, photographers were assigned to Corps Area laboratories or Department headquarters.

As to their ability, the Officer in Charge of the Photographic Division commented:

> In general, it is a safe bet to say that 95 per cent of the photographs sent into this office from our photographers in the field to be used for publicity purposes are unsatisfactory and cannot be used for one reason or another.[7]

This statement is particularly damning since the majority of all pictures taken were for publicity use. These photographic failures were believed at least partially attributable to lack of proper supervision by officers in charge of photographic work at Corps Areas and Departments. Captain Alonzo Fox, formerly in charge of Signal Corps photographic activities, summed up the situation:

> In my opinion there is throughout the commissioned personnel of the Signal Corps a distinct lack of understanding of what should be expected or demanded of the photographic personnel.... This can be corrected and should be, and the missionary work can best be begun at the school.... By criticism principally, the officer can become acquainted with the ordinary and usual mistakes which mar a picture and render it unsatisfactory as a proper record or for publication. How many hours should be devoted to this, I am unable to say, but I do think considerable more time should be allotted than is at present. Again I feel that the present school staff could arrive at the proper course, schedule, and time which is necessary to properly impart the instruction.[8]

Training was reorganized, and in 1931 a skilled motion picture photographer was obtained to teach that subject in a two weeks' course of 60 hours. Men of better than average ability were given the revised training, and after graduation many of them sought employment in industry as soon as their enlistments had expired; turnover of enlisted personnel was the chief complaint of the Photographic Division.[9] The number of graduates, though small, was adequate for Signal Corps needs:[8] the Fort Monmouth school graduated eight men in FY 1930,

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thirteen in 1931 (eleven of whom were from the Signal Corps, and two from the Air Corps), and fourteen in 1932, when two failed to complete the course successfully.[10]

In 1932, the photographic course at Fort Monmouth was suspended, and photographic personnel from that installation were put on detached service for training in news photography at Governors Island, Hq, II Corps Area, and for "further training in photography and laboratory work" at the Signal Corps Photographic Laboratory in Washington, as had been recommended in June of that year.[11]

Until 1937, all photographic training was conducted at these installations. By that time, the need for photographers had increased and a course in still picture procedures was instituted at Fort Monmouth, the length of the course to be "from three to six months, dependent upon the ability of the individual."[12] The six months' course held from 15 January to 15 July 1938 provided three graduates and one failure.[13]

In 1938 and 1939, it had been the practice to maintain at the Signal Corps Photographic Laboratory, three specially selected graduates of the Fort Monmouth photographic course, for additional training. Late in 1939, the need for capable photographers at SCPL had so increased that "Due to abnormal losses at the Signal Corps Photographic Laboratory, it appears to be desirable to discontinue the course of instruction of the present class [at Fort Monmouth] and assign them immediately for duty at the Signal Corps Photographic Laboratory where they can be further trained under the supervision of experienced photographers."[14]

[redacted]

Since 1937, the Signal Corps School at Fort Monmouth had allocated to Training Film Field Unit No. 1 some of the space used for photographic instruction. In 1940, an attempt was made to regain this space, but training films were greatly needed, and the situation remained unsolved until the establishment of the Signal Corps Photographic Center in 1942.[15]

B. The Pre-War Period

The outbreak of the war in Europe in September 1939 brought forth a flood of combat pictures from both Allied and Axis nations. The General Staff rapidly realized how a multitude of new lessons of modern warfare could be learned from such stills and footage — how important such pictures as, for example, "Sieg im Westen", were for military study, troop training, and home front information and morale — and how vitally such pictures would be needed by America if war came to this country.

Even before the Japanese struck, the nation was preparing for photographic coverage of the hostilities which threatened. Each mobile field army was to be covered by a Signal Photographic Company. Colonel (then Major) R. T. Schlosberg of Army Pictorial Division, on 22 November 1940, had estimated the Signal Corps requirement for photographic personnel. In a letter to Mr. William D; Ferguson, of Buffalo, New York, he wrote:

> Compared to the large number of men being brought into the service, the requirements for photographic personnel for the Signal Corps are small, initially under 300 in all, including both still and motion picture photography.

This included photographic work other than combat photography.

Motion picture photography had not been taught at the Fort Monmouth School since 1932, nor was such instruction provided for when the Replacement Training Center was established at Fort Monmouth at the advent of selective service. A twelve weeks' course in still photography was to be given by five men detailed from SCPL, and it was suggested that two additional men be secured from the Training Film Production Laboratory (formerly Training Film Field Unit No. 1) to instruct in motion picture work.[16] Training was to include the use of hand or portable motion picture cameras, in addition to other photographic equipment. It was also recommended that selectees who had shown exceptional qualifications in photography and leadership be sent to a proposed school at Fort Monmouth for advanced training, to qualify them for non-commissioned and specialist grades.[17] The school was to accommodate 100 students, half of whom were to be officers.

However, the Signal School was expanding rapidly, and it was decided not to press the adoption of this plan until all necessary arrangements had been made for training essential specialists in the Aircraft Warning Service. A substitute plan for training officers at the AAF Photographic School was rejected because "the suitability of their course for our purposes is considered doubtful." The Chief Signal Officer's decision in reply to such suggestions was that the proposals be held in abeyance until the beginning of the next fiscal year — 1 July 1941.[18]

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Figure 1

The Signal Corps Photographic Laboratory at the Army War College, known as Ft. Humphreys, D. C., when this picture was taken in February, 1937.

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SC-104607
Signal Corps Photographic Laboratory at
Fort Humphreys, D.C., 2/3/37

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In May 1941, War Plans & Training Division reported a surplus of fifty still photographers. Of these, 21 were assigned to the newly activated First (later designated 161st) Signal Photographic Company at Fort Benning, Georgia, and the remaining 29 shipped to photographic laboratories in overseas departments and Corps Areas.[18]

During the early months of 1941, the Replacement Training Center was producing still cameramen only — no motion picture photographers. Motion picture production men, scenario writers, etc., were required to produce training films, and the Army did not then recognize such classifications. To secure the needed men, the Office of the Chief Signal Officer sometimes advised qualified men, who were awaiting the draft, to give "a slightly different occupation specialty when interviewed in order to assure that they would be assigned to motion picture work."[19] Thus a scenario writer who gave his occupation as motion picture cutter, a recognized classification, would be sent to Fort Monmouth, then the Signal Corps' only Replacement Training Center, and utilized in the Training Film Production Laboratory. The practice was rendered unnecessary when additional motion picture specialties were listed.

The number of professional motion picture cameramen being inducted was "wholly inadequate" for the Signal Corps' purposes, and although training in specialties not taught at the Replacement Training Center was given at the Training Film Production Laboratory, it was recommended that a special school for motion picture instruction be organized.[20] A school capable of accommodating 100 enlisted still photographers was also proposed.

[redacted]

The school for motion picture photographers was authorized, and an expenditure of $15,000 for a building and $1,700 for equipment was planned, to train a minimum of 30 men at all times in a three-months' course.[21] But before the plan could be effected, another proposal was made: to combine all photographic activities into one establishment, with facilities for training 100 motion picture cameramen simultaneously.[22] While not acted upon immediately, this was accomplished later in the establishment of the Signal Corps Photographic Center in Long Island City, N. Y.

At the same time, there was instruction of Signal Corps photographers in civilian institutions. In 1930, arrangements had been made through the Academy of Motion Picture Arts and Sciences to train a limited number of officers in the major Hollywood studios, the immediate cause being Army interest in the then relatively new sound pictures. Each officer was to be exposed to the industry's various phases for approximately one year, to become familiarized with technical laboratory and production methods.[23] In the nine years during which the Hollywood training was given, eight Signal Corps officers received the instruction. The final one reported, "The schedule of instruction as now arranged is very haphazard.... The schedule should be laid out in advance, specifying a definite amount of time to be spent with each organization.... [and] should be arranged so that less time will be spent in the three major studios which now fill the major part of the schedule time and more in the small studios...."[24]

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Figure 2

Training in combat photography, 1933, at Ft. Riley, Kan. Lieutenant atop truck is now colonel, and Chief of Army Pictorial Service; civilian heads Equipment Branch APS.

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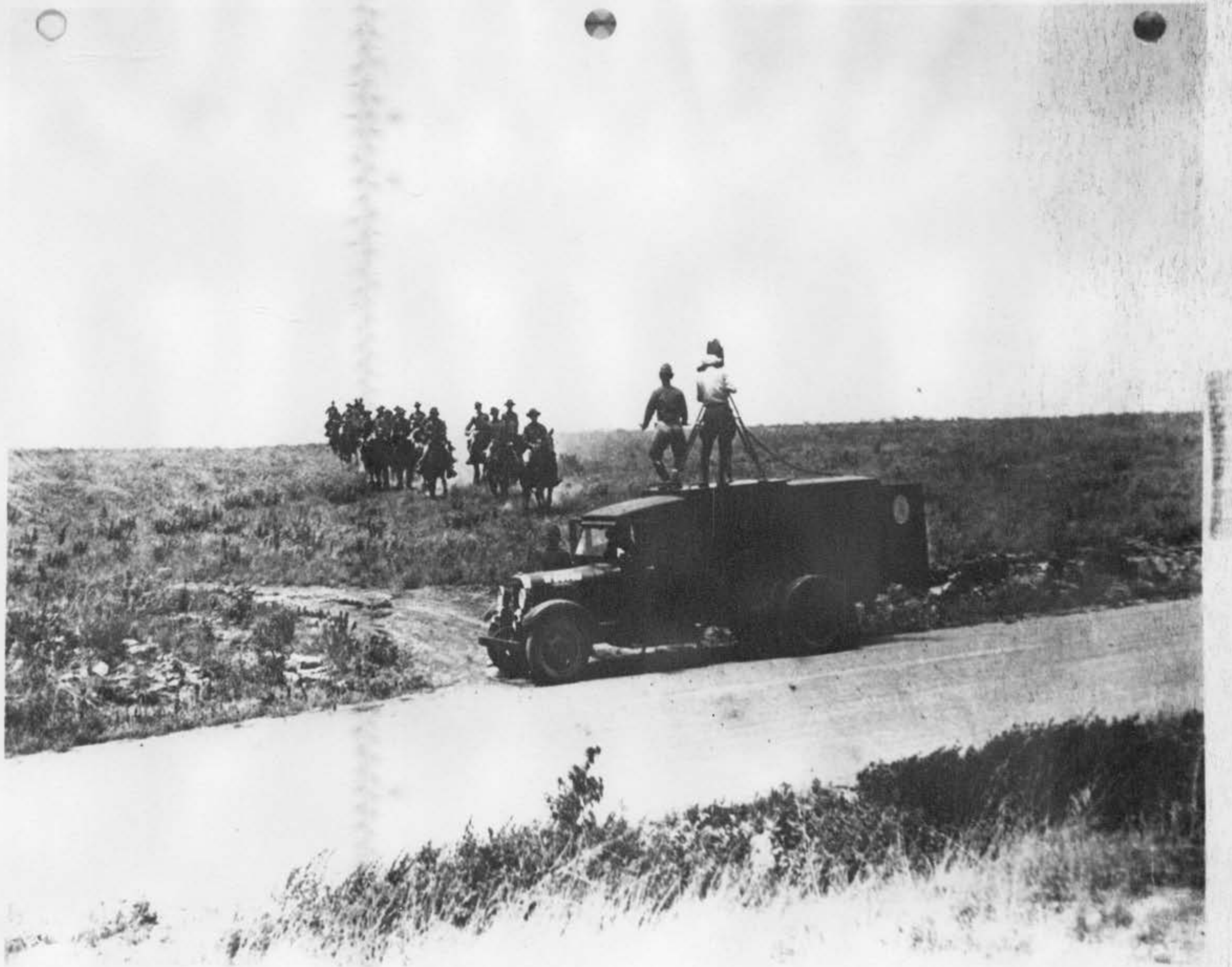

SC-101532
Shooting "Tactical Employment of 50 Cal. M.G." Ft. Riley, Kansas, 1933. Lieut Jervey and Willard Jones on truck.

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In the latter part of 1941, an option was taken on the old Paramount Studios at Astoria, Long Island City, N. Y. This option was exercised on 25 January 194~~1~~2, and the Signal Corps Photographic Center took form. Plans were made to conduct photographic training at the center, and the move from Fort Monmouth commenced. This transfer of equipment and personnel required four months, during which "such numbers of the 94 trainees scheduled for training each 13 weeks as may be requested by the Commanding Officer of the Training Film Production Laboratory, Fort Monmouth, will be trained at the Training Film Production Laboratory in the motion picture photographic specialties. The remainder of the 94 trainees will be trained in the Replacement Training Center in basic photography dealing in general with the phases of still photography."[25] This policy was to continue until photographic training activities could be transferred to the SCPC, after which photographic trainees were to receive only basic training at the RTC.

In 1941, further training in civilian institutions was given. A seven-month course in newsreel photography was instituted at March of Time, Inc. on 3 February 1941; a nine-weeks' course in news photography at Life Magazine commenced in July of the same year. In addition, two men were sent to the Winona Photographic School, Winona Lake, Indiana.[26] On 30 April 1942, the first course was begun at the Signal Corps Photographic Center, where it was planned to have 150 men always in training, half in still photography, half in motion pictures, a quota not achieved until after June 1944. At this time, also, responsibility for photographic training passed from Military Training Division, OCSigO, to Army Pictorial Service, OCSigO. The school at

//

SCPC has regularly been directly under the Commanding Officer of the Center.[27]

At first the Photographic School Division of SCPC was set up as the 864th Signal Photographic Battalion, but later became an administrative unit operated as an entity, handling its own personnel and internal administrative and supply matters; Post Headquarters and Training Headquarters were "considered separate headquarters in their own sphere."[27]

C. Training for World War II

The anticipated requirement for combat photographers in the spring of 1942 had called for a weekly enrollment of thirteen men: three from Fort Monmouth, ten from Camp Crowder. By summer, it appeared necessary to increase the weekly enrollment to thirty.[28] To do this, it was necessary to draw a weekly quota of fifteen men from Camp Kohler.[29] The quota for calendar year 1943 was first set at 3000 photographic technicians. This figure was later revised to 225: three companies of 75 men each. Each company was to include the following specialists:[30]

30	Motion Picture Cameramen
20	Still Photographers
20	Darkroom Men
2	Film Recorders
1	Camera Repairman
1	Sound Recording Equipment Maintenance Man
1	Motion Picture Equipment Maintenance Man

It was also planned to train 40 officers at the SCPC School in 1943.

Thus Photographic quotas for 1942 and 1943 were 660 and 300 trained technicians, respectively. The actual numbers trained were 525

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Figure 3

Future photographic officers received instruction at the Signal Corps Photographic Laboratory, Washington, D. C., before Pearl Harbor, as shown in this picture, taken in March, 1941.

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5C
5-B
5C

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Class in still photography - with graphic and view
camera, Army War College, D. C. 3/24/41.
Student operating news type camera ([illegible]

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enlisted men in 1942, 101 officers and 652 men in 1943. In 1944 the totals trained were 97 officers and 661 men; in 1945, 86 officers and 421 men. The totals for the four years were 284 officers and 2259 men. A breakdown showing the categories trained in these years appears in the accompanying tables and graph.

The Signal Corps had hoped to draw most of its students in combat photography from men whom the Reception Centers had placed in one or more of the following classifications:

Photographers, News (402)
Cameraman, Motion Picture (043)
Film Recorder, Motion Picture, Sound (208)
Photographic Laboratory Supervisor (154)
Laboratory Supervisor (134)
Chemist (411)
Photographer, Developer and Printer (154)
Laboratory Technician, 16mm and 35mm (134)
Projectionist, Motion Picture (137)
Film Editor and Cutter (131)
Camera Repairman (042)
Equipment Maintenance Man (133)
Sound Recording Equipment Maintenance Man (207)
Electrician, generator, and Motion Picture (132) [31]

This did not work out in practice, for there were too few men of this type to fill quotas. Advanced amateur photographers were accepted as the best substitute, the term "advanced amateur" as applied to photographers having much the same connotation as when "amateur" is used to describe a radio operator: the meaning conveyed is "a skilled non-professional", by no means is a "a ~~tryo~~ tyro" indicated. The men chosen to become photographers recieved their basic training; their "special skill" training covered operation of Army photographic equipment which was in most cases similar to that which they had used as civilians.

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PHOTOGRAPHIC TRAINING, OFFICERS

CALENDAR YEARS 1942 THROUGH 1945*

APPLICABLE BUT NOT EXCLUSIVE, TO COMBAT PHOTOGRAPHY

Cl	Title	1942	1943	1944	1945	Total
Motion Picture Making Activities						
MOS 8520	Motion Picture Coordinating Officer			2	1	3
MOS 8530	Motion Picture Officer	— 0	95 95	76 78	67 68	238 241
Other Motion Picture Activities						
MOS 8515	Motion Picture Laboratory Engineer				2	2
MOS 8516	Motion Picture Editor				1	1
MOS 8517	Sound Officer	— 0	— 0	9 9	3 6	12 15
Still Picture Activities						
MOS 8540-41	Still, Military, Officer	— 0	6 6	7 7	10 10	23 23
All Other Photographic Activities						
MOS 7052	Photo Equipment Engineer			2	1	3
MOS 8500	**Unit Commander**			1		1
MOS 8550	Unit Manager	— 0	— 0	— 3	1 2	1 5
TOTAL						
	Motion Picture	0	95	87	74	256
	Still Picture	0	6	7	10	23
	All others	0 0	0 101	3 97	2 86	5 284

*Statistics on training, as shown in these tables and graph, from R H Clearman, Operations Section, Military Training Branch, P & T Division, 8 February 1945.

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PHOTOGRAPHIC TRAINING, ENLISTED PERSONNEL,

CALENDAR YEARS 1942 THROUGH 1945 *

APPLICABLE BUT NOT EXCLUSIVE, TO COMBAT PHOTOGRAPHY

Cl	Title	1942	1943	1944	1945	Total
Picture-taking activities						
152 (402)	Photographer, News	265**	161	180	101	707
Processing activities						
134	Laboratory Technician, Motion Picture	1	2	2	11	16
154	Photographic Darkroom Man	1	80			81
411	Chemical Laboratory Assistant			3		3
945	Photographic Laboratory Technician			200	112	312
		2	82	205	123	412
Maintenance activities						
042	Camera Repairman	2	85			87
043	Camera Repairman, Motion Picture	51		196	144	391
133	Camera Repairman			17		17
		53	85	213	144	495

TOTALS	1942	1943	1944	1945	Total
Picture-taking	265	161	180	101	707
Processing	2	82	205	123	412
Maintenance	53	85	213	144	495
	320	328	598	368	1614

**Included processing until late in 1942, per Capt WR Jennings, APS, 10 May 1946

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OTHER PHOTOGRAPHIC TRAINING

Cl	Title	1942	1943	1944	1945	Total
070	Draftsman		3			3
130	Animation Artist	130	41	5		176
131	Film Editor, Motion Picture	11	28	12	4	55
132	Electrician, Motion Picture	4	9	2	11	26
135	Electric Locomotive (Model)		9			9
136	Model Maker		5			5
137	Projectionist, Motion Picture***	47		1	9	57
206	16mm Sound Projector Repairman			18	2	20
207	Sound Recording Equipment	1				1
207-8	Sound Recorder			36	25	61
208	Sound Recorder, Motion Picture	2	62		2	66
285	Cameraman, Animated		3	1		4
286	Motion Picture Production	1	17	2		20
287	Sound Editor, Motion Picture	3	1			4
288	Playwright	3	98	1		102
296	Artist	1	21	1		23
407	Sound Mixer, Motion Picture		2	1		3
415	Electrical Sound Trans.		5			5
442	Actor, Motion Picture	2	3			5
		205	307	80	53	645

TOTALS

	1942	1943	1944	1945	Total
Applicable to Combat Photography	320	345	581	368	1614
Others	205	307	80	53	645
	525	652	661	421	2259

***Personnel of using organizations in the field received training from Library personnel trained by the Signal Corps; interview with Capt W R Jennings, APS, 10 May 1946

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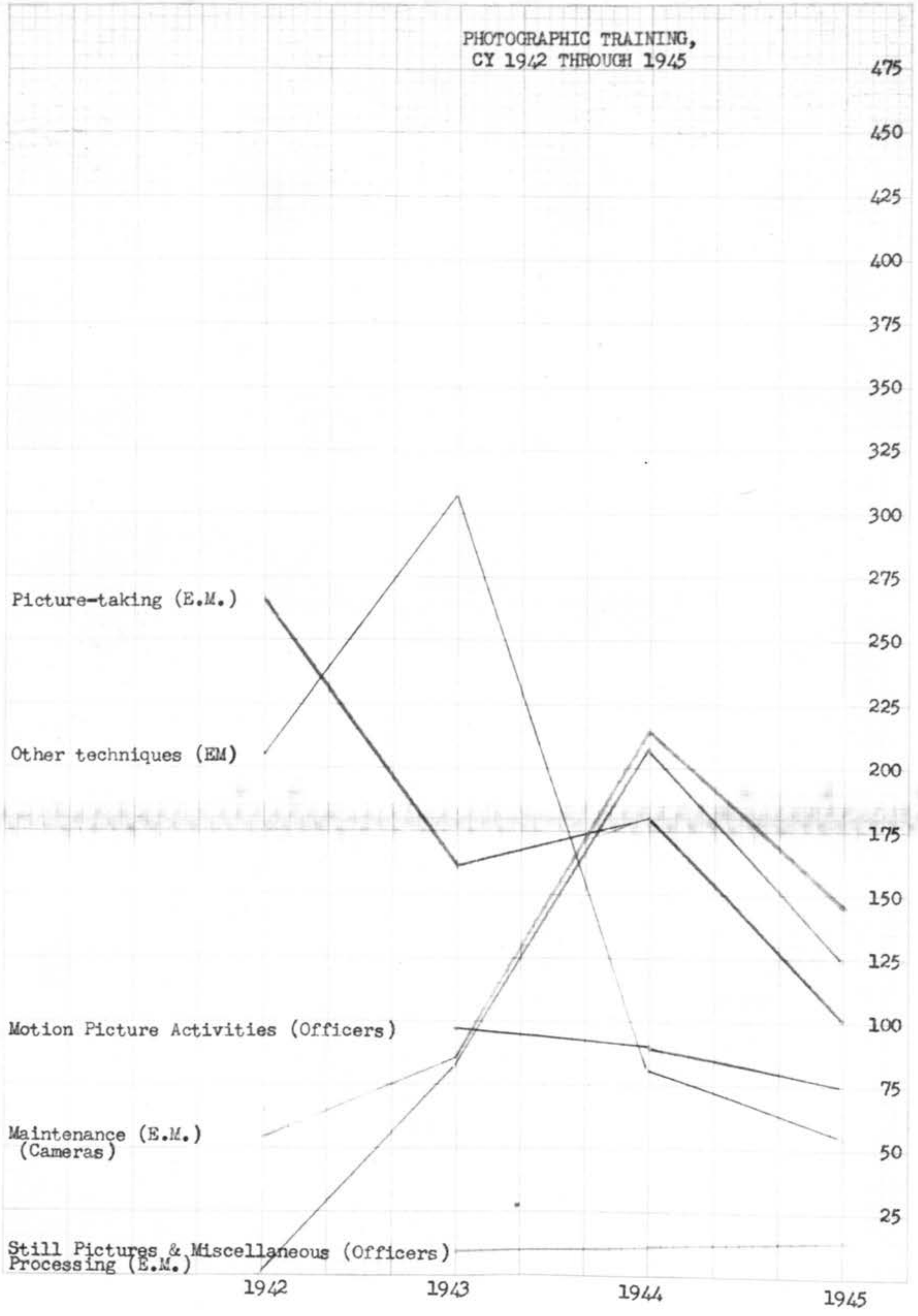

PHOTOGRAPHIC TRAINING, CY 1942 THROUGH 1945

The training program, as established in the referenced directive, covered a period of twelve weeks, each consisting of six eight-hour days. Every student received four weeks of training in the fundamentals of photography, the following eight weeks being devoted to studies which would prepare each for his particular specialty. To conserve space, equipment, and instructor personnel, the training of closely allied specialists was combined, care being exercised to avoid over-emphasis of this policy to the point where the teaching of some of the trainees would suffer. In order that they might be prepared to perform their work under any conditions that might arise in the field, training was to be conducted without regard to daylight, darkness or weather conditions, largely under simulated field conditions.

The course included text material providing references to supplement the instructors' lectures,[32] and emphasis was placed upon the practical, to enable the students to fulfill their missions when training had been completed.[33]

Officers eventually received much the same training as did enlisted men, but in 1942 the suggestion was made and approved that those to be assigned to Signal Photographic Companies and Corps Areas be familiarized with news coverage and the types of photographs desired by news and picture agencies. To this end, they were to make brief visits to the Army Pictorial Service and the Bureau of Public Relations in Washington, and to the SCPC "for a short instruction period on.... news photographic coverage, together with visits to some of the photo departments of the leading newspapers and magazines."[34]

The Academy of Motion Picture Arts and Sciences, which had previously helped in officer training, again started a motion picture photography course in which 16 were enrolled, and followed this with other and larger classes. This organization also arranged courses in still photography, with 10 men attending each class at Warner Bros., Columbia, Universal, and RKO Pictures. All trainees were members of the Enlisted Reserve Corps; all were called to active duty with the Signal Corps upon completion of the training, some as instructors at the SCPC.[35] The Motion Picture Producers' Association defrayed the cost of training.

Other civilian organizations affording training to Signal Corps photographers included Acme Pictures, Associated Press, International News Service, and the New York Daily News, Daily Mirror, Times, World-Telegram, Journal-American, and PM. Training in these organizations consisted of letting the student accompany a seasoned professional cameraman on his rounds, taking pictures and comparing them with those made by the newspaperman. In some instances, the student devoted his efforts solely to taking pictures; in others, he developed his film as well, for immediate criticism. In all cases, the students were given advice and instruction based upon the result of their work, the staffs of the news agencies having full supervision over this part of the training. Students thus gained experience in judging newsworthy pictures, composition, and technical photography, all of which would be valuable in combat work.

In addition to training in camera and darkroom work, SCPC inaugurated courses on the repair and maintenance of photographic equipment in the latter part of 1942. This type of instruction was also offered by the United States Office of Education in a pre-service training course on camera repair, some graduates of which attended the SCPC classes.[36]

A limited number of Air Forces personnel were also trained at the Signal Corps Photographic Center commencing in December, 1942.[37]

D. Activation and Deployment

As early as August 1941, two Signal Photographic Companies, the 161st and 162nd, had been activated and were in training. They were ready for assignment immediately after Pearl Harbor.

Thereafter photographic units were quickly sent to the field, though on a small scale. A detachment of the 162nd Signal Photographic Company, consisting of 1 officer and six enlisted men was given movement orders in January 1942.[38] A similar unit of the 161st Signal Photographic Company received its orders the following March. Two months later, in May, another detachment of 7 officers and 83 men had movement orders. Two more units, one with 17 officers and 164 men, the other with 1 officer and 6 men, were moved in June, and two additional in October, consisting of 2 officers and 6 men, and 1 officer and 5 men, respectively.[39] The figures are significant, for they reveal how few qualified personnel were available for this exacting work. By the end of February 1943, special photographic units were active in several theaters.[40] A general detachment of the 161st Signal Photographic Company was in the Southwest Pacific, and other units were operating in Iceland, Ireland, China and Hawaii; units of the 162nd were serving in Panama, Puerto Rico, Trinidad, Newfoundland, New Caledonia, ETOUSA and NATOUSA. Four units of the 163rd were also

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Figure 4

Training in the operation of motion picture cameras was given at the Signal Corps Photographic Center, Long Island City, N. Y.

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SC 155154
Pvt. Avnet (2nd from left) is shown instructing students of one of the motion picture classes on the operation of a movie camera. Photographic Center, Astoria, N.Y.

D

in NATOUSA. Other personnel of these two Companies, and the 165th, were in training in the United States, as was the 196th, which was composed of four units from the 161st. Three other Signal Photographic Companies were in the process of formation.[41] Though great strides had been made in meeting the need for more and more photographers, the supply remained temporarily insufficient.

Evidence of this shortage, and how it was alleviated, may be adduced from a comparison of the following figures.

As American troops first landed on Algeria, a sergeant and a private were the only combat photographers present; they were equipped with two still and three motion picture cameras. In Tunisia, a group of twelve photographers covered a 148-mile front, five of these men being held in reserve for rapid coverage of important assignments.

This paucity of personnel may be contrasted with approximately 100 combat photographers who covered the Normandy invasion. During the 7½ weeks after D-Day (actually 10 July 1944 to 31 August 1944) they sent to the War Department 8,746 stills, 56,500 feet of 35mm black-and-white film, and 1,650 feet of 16mm Kodachrome.

By 1 April 1945, there were some 200 cameramen on the European front, exclusive of others elsewhere in the European Theater of Operations. They had made 55,000 stills and 2,500,000 feet of motion pictures, a substantial part of the 500,000 stills and 9,000,000 feet of motion pictures furnished to various using agencies.[42]

Although there was a shortage of both combat photographers and some equipment in certain areas, there was a surplus in others, though this was of infrequent occurrence. Illustrative of the latter condition are the following extracts from an Intelligence Report:

> 2. Southeast Asia Command Photographic Unit performs all photographic activities for SEAC. It consists of 15 officers - 1 Lt Col, 1 Maj, 10 Capts, and a few 1st Lt and 2d Lts, plus approximately 100 enlisted men. Normally the chain of command brings it under General Weaver, commanding U S troops of SEAC, but actually it operated directly under SEAC (British) Headquarters. Its photographic equipment is described by source as being superior, and included 18 Eyemo movie cameras, both hand and motor driven, Speed Graphics, and a full complement of 16mm Eastmans. The officers of this unit are highly trained technicians who held civilian employment in the motion picture industry; they are almost 100 per cent from Metro Goldwyn Mayer studios. The enlisted men are also trained technicians — including the large increment of specialists from Capt. Moore's defunct 3rd Signal Photographic Unit.
>
> 3. .....Southeast Asia Command Photographic Unit, under Col. Ascher, is operating at less than 5 per cent of capacity. ... The only work of concrete character performed by this unit from August to December 1944, as observed by Capt. Moore, consisted of taking still and moving pictures of Lord Mountbatten. The superior and expensive equipment was wasted as well.[43]

Rare as a situation of this sort may have been, it would appear to indicate that it is not necessary only to train photographers and to equip them, but also to make sure that most of them are assigned to more active areas.

E. Criticism

Combat photography was far from perfect in the early days of the war. It was the subject of bitter criticism from the field, and even more so from its own headquarters. There was ample reason not only for such criticism, but also for the shortcomings that caused it.

Until the value of combat photography had been proven by

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Figure 5

Members of the 161st Signal Photographic Company in training at Ft. Benning, Ga., in October 1941.

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Kodak
POISON
123933

SC 123933
Working on photographs, 161st Signal Photo Company,
Ft. Benning, Ga.
Photo #161SC-41-422 by the 161st Signal Photographic Co., Ft. Benning, Ga., October 1941.
4x5 orig. neg.

SIGNAL CORPS PHOTO
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OF THE BUREAU OF
OR BY THEATRE [illegible] CENSOR

the actual use made on the field, by the Staff in Washington, and in the laboratories of the technical services, there was an apparent tendency in policy levels to consider such work as a luxury — nice enough if it could be arranged, but not of much military value. This tendency was evidenced by the limited amount of training activity in pre-war years, by lack of development of truly military photographic equipment, and by the reluctance of some tactical organizations to afford adequate facilities to photographers.

The first weakness was remedied as rapidly as possible by the expansion of training; the second, to some extent, by the inauguration of the Pictorial Engineering and Research Laboratory; the third by continuing effort to impress the field with the need for combat stills and footage, and to insure that every effort would be made to raise the quantity and quality of material sent in.

The story of training has been outlined in this chapter and treated more fully in History of Photographic Training, 1917-1943. That of equipment will be found in the following chapter and, in greater detail, in History of Operations at PERL. As for the effort to facilitate the work of the combat photographer in the field, the following extracts from a directive from the Office of the Secretary of War will furnish an example:[44]

> 1. Motion picture and still photography in the Theaters of Operations is essential in keeping the American people informed of the war effort, in officially documenting the war progress, and in building official photographic libraries.
>
> 2. Pictorial coverage of the war thus far, both officially and commercially, through newsreel cameramen and newspaper photographers accredited as war correspondents has not been satisfactory and is not attaining the

> public relations effect desired for the Army. A greater flow of both commercial and official motion and still pictures is desired.
>
> 3. It is reported that stocks of negatives representing subjects of possible great interest to the War Department are being filed at some overseas headquarters. This procedure is inconsistent with an appreciation of what constitutes first, a fully informed government, and second, wherever possible, an enlightened people.

The directive offered reassurance that photography in itself would not violate security, explaining that no material would be released to the public without censorship by the Photonews Board.[45] Finally, it desired Theater commanders to "afford accredited pictorial war correspondents and official Army Photographic agencies every reasonable opportunity to photograph Army activities."

This and other directives did much to facilitate the work of the combat photographers. They were issued identification cards which permitted them to "cover" the war. They produced film which proved their merit and their essentiality to the war effort. But throughout the war there was a steady trickle of criticism. Weighed against the results produced, this appears to relate to a small percentage of the men; none the less, adverse comment on the training accorded combat photographers was sufficiently frequent and sustained to warrant the inclusion of some typical comments.

Both lack of training and method of supervision of combat photographers were criticized by Sgt. Bernard Liebman, who based his comments upon the performance of the 162nd Signal Photographic Company. Activated in May 1941, this organization participated in the Louisiana Maneuvers in September of that year, prior to being assigned to service in the ETO. The report states:

> The company was not, as a whole, fully trained before it went overseas. This was due to the fact that many of the trained men in units of six had already left for various overseas posts. The vacancies created by these men were filled by non-photographic personnel who, in addition had had little military training. But in spite of this, about 60 per cent of the personnel of the company were trained. The 162nd, prior to embarkation, were more or less a photographic pool from which units were drawn to serve with divisions going overseas.
>
> Since the company was broken up in actual operation it would have been better if the initial program had concentrated on developing individual initiative in the cameraman. As it was, the officer in charge of each six man unit was the person in control. The cameramen were just his instruments. This of course would have been all right provided the officer in charge was a proficient photographer, but many of these officers were not. However, that situation improved in time.
>
> British photographers go out individually or in groups of three with specific assignments and with complete freedom to carry out these assignments any way seen fit. They are given sufficient rank and freedom of action to facilitate the carrying out of assignments.

That photographers with inadequate training were still reaching the field in the latter part of 1942 is borne out by a secret report from the 163rd Photographic Company, activated at Fort Sam Houston, Texas, on 10 April 1942.[46] The report says, "The status of training is not good. Captain Moorehouse (the company commander) states that he is losing all but two of his NCO's to OCS. He is attempting to train 35 new men with one camera. Additional cameras are needed badly to complete the training."

Regarding photographic training in theaters, the Photographic Officer at Casablanca wrote, on 11 February 1943,

> I was called back from a nine months detached service to my base station to participate in the training of a cadre for a photographic company. At the completion of this assignment I was placed in a class for instruction

> and operation of the Speed Graphic Camera. This class was being instructed by an officer who had no background of news-photography and was instructing by reading from a book. I believe it is a waste of valuable time to instruct experienced photographers by reading basic photography to them from a book. Officers should not receive basic photographic training while on duty with a photographic company but should have received such training at special schools before being assigned to a company.[47]

A questionnaire sent to the field in 1944 asked, among other queries, "Is the degree of (technical photographic) training prior to arrival in theater adequate?" The reply was, "The answer is NO. Prior to the unit's moving overseas it was a unit of the Second Army. Second Army's requirements necessitated all available time being spent on troop training. Only a small amount of the photographic personnel had been previously trained at the Signal Corps Photographic School."[48] Further criticism relative to specific training problems will be found in the chapters dealing with overseas experiences.

F. Conclusions.

Photography, used principally for record purposes in World War I, received rather sporadic attention from the Army during the peace period. Courses of instruction were given from time to time, but almost until Pearl Harbor, these touched upon virtually every phase of the trade except combat photography. The number of men trained was small - sufficient to meet immediate needs, but not enough to form an appreciable nucleus for a war-strength army. Equipment, as is explained in the following chapter, was not the subject of military engineering during the peace years. Other branches of the Signal Corps maintained development laboratories continuously; the Pictorial Engineering and Research Laboratory was not inaugurated until 11 April 1943.

An entirely new problem was placed before the Army when the tactical, strategic, engineering and morale value of combat photography was fully realized. Its use for historical and public relations purposes was well understood before the war, and it is probable that pre-war planning would have provided sufficient personnel to meet those requirements. But the greatly expanded needs called for a similar expansion of photographic activities. As the war progressed, policy and methods were changed; the Army Pictorial Service learned from experience. Training was stepped up; new equipment was designed; the organization of photographic units was altered.[49]

As the war drew to its close, commendation had virtually replaced condemnation in regard to combat photography.[50]

REFERENCES FOR CHAPTER I

1. Historical Sketch of the Signal Corps, 1860-1941, Dec. 1942, p. 80. See also Photography in World War I, p. 8.
2. Still picture figures, representing pictures made in the United States as well as overseas, were obtained in interview with Miss Painter, of National Archives. Motion picture figures, for overseas footage only, as received in the United States by June 1919, are from the Annual Report of the Chief Signal Officer for FY 1919.
3. Annual Report, CSigO, FY 1920, p. 59.
4. Annual Report, CSigO, FY 1919, p. 342 (All data on World War I training are from this report.)
5. Signal Corps Bulletin No. 35, August 1926, p. 50.
6. Memo for CSigO fr Maj. W. E. Prosser, OIC, APS, 23 July 1928.

7. Ltr fr Maj. C. W. Lewis to Maj. S. B. Akin, Sig C School, 6 Nov. 1930.

8. Quoted in ltr fr Maj. C. W. Lewis to Maj. S. B. Akin, 29 Dec. 1930, replying to Akins of 22 Nov. 1930, answering ltr cited in fn 7 above.

9. History of Photographic Training, 1917-1943, p. 6.

10. Annual Report, CSigO, FY 1931; Strength Report of Signal School, FY 1930.

11. Memo fr Capt. F. W. Horn, OIC, APS to CSigO, 1 June 1932.

12. Ltr fr Col. Dawson Olmstead to CO, Ft. Monmouth, N. J., 17 Dec. 1937.

13. Memo fr Capt. Chas. Stodter to CSigO, 17 Aug. 1938.

14. Memo for Ex. O. fr Maj. R. T. Schlosberg, PD, 29 Dec. 1939.

15. Ltr fr CG, Ft. Monmouth, to OIC, TFFU, 27 July 1940.

16. Ltr fr Lt. Col. M. E. Gillette, OIC, TFPL, to CG, Ft. Monmouth, 15 Feb. 1941.

17. Ltr fr Lt. Col. Richard T. Schlosberg, OIC, PD, to Exec. Officer, 14 Apr 1941.

18. R & W fr ExO to CSigO, 29 Apr 1941.

19. List compiled 25 Apr 1941, initialed M.E.G. (Lt. Col. M. E. Gillette, OIC, TFPL, Ft. Monmouth, N. J.)

20. Ltr fr Lt. Col. M. E. Gillette, OIC, TFPL, to CSigO, 22 July 1941.

21. R & W fr CSigO to Operations Br., OCSigO, 26 Aug. 1941.

22. Ltr fr Lt. Col. M. E. Gillette, OIC, TFPL, to CSigO, 12 Aug. 1941.

23. Ltr "Report on Hollywood Mission," fr Maj. W. E. Prosser, SigO, 8th Corps Area, to CSigO, 6 December 1930. (Maj. Prosser was formerly OIC, APS).

24. Ltr fr the late Lt. Dwight Mulkey to OIC, Photo Div., 12 June 1939.

25. Ltr fr CSigO to CG, SCRTC, 22 Feb. 1942.

26. Ltr fr TAG to CO, Ft. Monmouth, 17 June 1941.

27. Questionnaire completed for Mil. Tr. Div., ASF, by SCPC School Div., 30 June 1944.

28. Ltr fr Col. M. E. Gillette, CO, SCPC, to Chief, APS, 14 Aug. 1942. R & W "Request for Authorization to Secure 30 Men Per Week from the Signal Corps Replacement Training Centers," fr Maj. R. R. Kilgore, Mil. Pers. Div., to Mil. Trg. Div., 24 Aug. 1942.

29. R & W fr Col. J. D. B. Lattin, Mil. Trg. Div., to Pictorial Admn. Div., APS, 26 Aug. 1942.

30. Summary Report, p. 287.

31. Ltr fr Chief, APS to CO, SCPC, 2 June 1943, Subj: Training Directive to Training Division, Signal Corps Photographic Center.

32. See Appendix B herewith, for list of applicable WD publications.

33. See footnote 31.

34. R & W fr Maj. L. LeMan to Col. J. T. Watson, Jr., OIC, APS, approved by Col. Watson 17 July 1942.

35. Memo fr Mr. Darryl Zanuck to Brd of Governors of Academy of motion Picture Arts and Sciences, 9 July 1942.

36. Signal Corps Technical Information Letter, No. 11, Nov. 1942, p. 11.

37. Ltr fr Lt. Gen. Brehon Somervell to CSigO, 2 Nov. 1942.

38. The usual personnel of a general assignment unit was 1 officer and 6 men, two of whom were still photographers, 2 motion picture cameramen, and 2 drivers; that of a laboratory unit, 1 T-4 and 6 men. (Cf History of Photographic Training, 1917-1943, p. 32.)

39. Summary Report of Signal Corps Visual Aid Activities, from 4 Aug. 1941 to 26 Feb. 1943, Chapter VII, p. 350.

40. A breakdown of distribution of combat photographic organizations on 7 Dec. 1941, D-Day, V-E Day and V-J Day appears in Appendix C.

41. See footnote 39.

42. Press released dated 1 April 1945, fr 12th Army Group, ETO.

43. Intelligence Report fr Capt. Frank Moore, 0-233071, returned from Kandy, Ceylon on waste of technically trained personnel, 11 Jan. 45, Report #242 at Wilmington, Calif. POE.

44. Directive fr S/W to All Commanders in Theaters of Operations, 30 June 1942, Subj: Motion Picture and Still Photography in the Theaters of Operations.

45. The functioning of this board is described in Chapter IV.

46. Report dtd 7 Sept. 42 (no subject or signature) in file 370.5 North Africa Units, Book 1, APS.

47. Report fr Lt. Jack Judge, 11 Feb. 43 to Chief, APS.

48. CONFIDENTIAL Report completed by 163rd Signal Photo Co and 2nd Gen. Assignment Unit, 196th Signal Photo Co. Report received in Sig. Intelligence 24 April 1944.

49. See Appendix C.

50. See Chapter VII. (NOTE: Also see monograph: History of the Signal Corps Affiliated Plan).

[redacted]

CHAPTER II

COMBAT PHOTOGRAPHIC EQUIPMENT

A. Early Equipment

The problem of supplying the combat photographer with the still and motion picture equipment best suited to his mission, acute in December, 1941, had not been completely solved on V-J Day; as a matter of fact, no perfect solution is ever found for a problem involving military equipment. The continuing problem was two-fold; first, to determine or design the best possible apparatus; second, to get it into production and into the hands of the troops.

During the first World War, only the second portion of the problem was given much consideration. No photographic equipment of any description was catalogued, and it was not until the October, 1920, Signal Corps General Catalog was issued that photographic equipment was listed, although Army photographers, provided with commercial equipment procured through commercial channels as needed, had taken some 165,000 stills and hundreds of thousands of feet of motion pictures throughout the 1917-1918 period. Of the five photographic items first listed in 1920, three appear to have been usable in combat photography. These were:

> Camera PH-1, a motion picture camera for field use, complete with waterproof metal case and fittings for attachment of shoulder straps and tripod. Weight, 30 lb. (Note: Description does not state whether this is a 35mm or a 16mm camera, and film for it is not catalogued, but lens equipment indicates the 35mm size. - Ed.)

[redacted]

Camera Equipment PH-3, includes the above camera, six 400-ft. magazines, a case containing a set of four lenses ranging in focal length from 41 to 153 mm, a tripod, spare parts, and simple repair tools.

Telephoto Camera PH-4, a long range telescopic camera, with vertically mounted bellows and prismatic telescopic lens.

By the outbreak of World War II, many more photographic items had been added, nomenclatures up to PH-251 appearing on a section dated 1 Jan 1938 in the 1940 Signal Corps General Catalog. The number of items had increased more than 50 per cent (to PH-403) by 1 July 1942, and at the end of World War II, PH-465 had been assigned. In addition, 105 nomenclatures were assigned to photographic equipment subsequent to 1942, under the so-called "Army-Navy Nomenclature System," making a total of 570 items, most of which were procured and issued. Some of these items were available in more than one model, an outstanding example being the Camera PH-47-() series, one of several pieces of equipment which were standardized before Pearl Harbor and which continued in use throughout World War II. Much other apparatus, stocked during the long armistice between the two wars, was dropped as unsuitable for use in modern warfare.

The situation in regard to motion picture cameras was similar, with smaller, lighter, more rugged equipment replacing the older models, especially for combat use. Reference to Signal Corps General Catalogs for 1920, 1940, 1942 and 1945 will show the trend in regard to photographic equipment.

B. Still Photographic Equipment.

As has been mentioned briefly, still cameras for combat photography, as available for issue at the outbreak of the war, were of commercial types. The PH-7, a "post-card size" Graflex, had already been marked for the discard, being replaced by the PH-47 and the PH-47-A, both 4" x 5" Speed Graphics, the former with a 6½", f:4.5 domestic Tesar lens, six plate holders, and carrying case; the latter without lens or accessories.

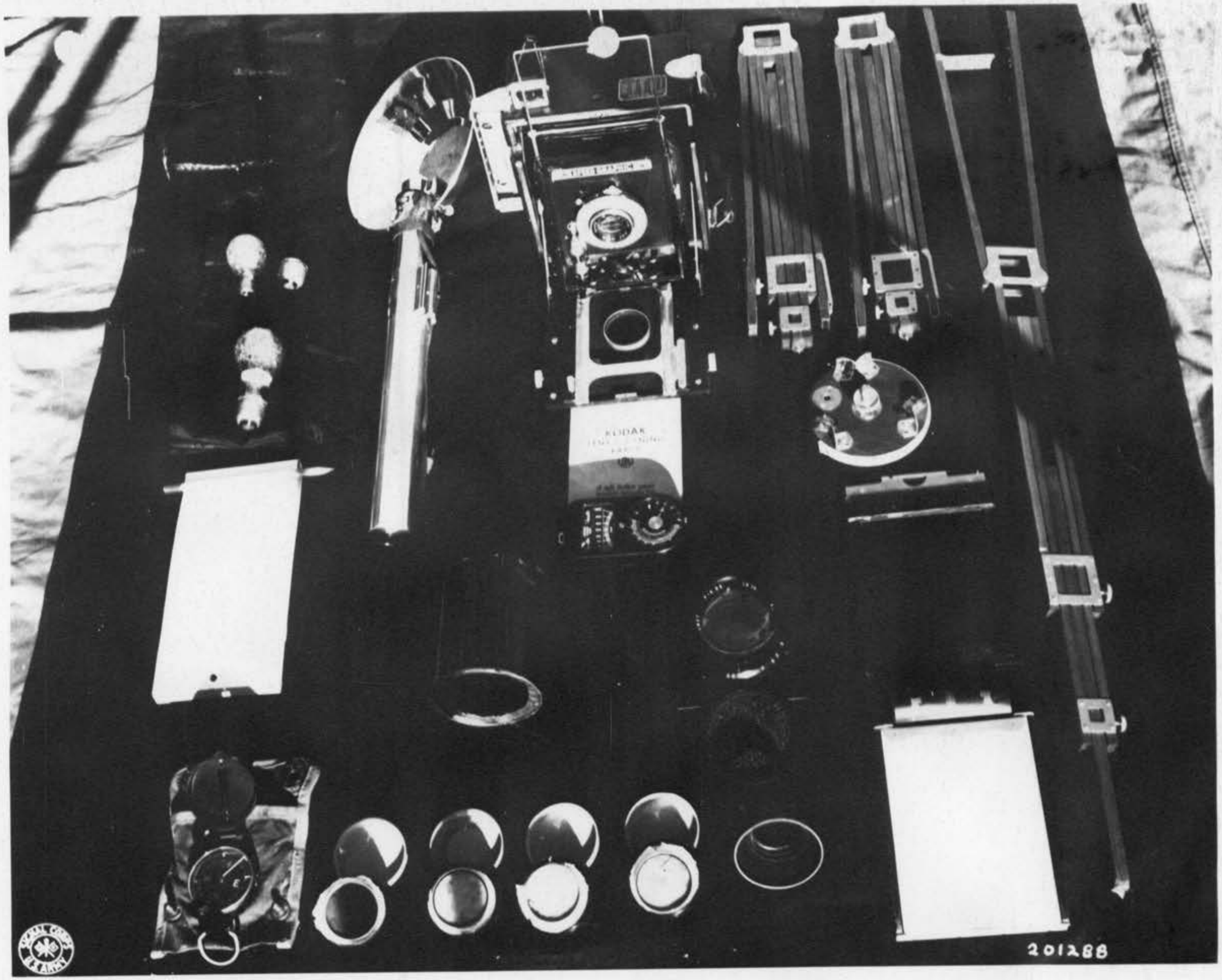
Early in 1942, four additional Speed Graphics were procured. These, PH-47-B through PH-47-E, were of the "working press" type, being equipped with coupled range finders and synchronized flash guns. This virtually doubled the weight of the camera, but afforded greater versatility. Shorter focal length lenses were used -- 127mm and 5½ inches -- to provide a wider field.

Camera Equipment PH-104 included one such camera (generally the -E or -F model) and such further accessories as cut film holders, film pack adapters, tripod, lens hood and filters, packed, together with minor items, in a carrying case.

The above-mentioned equipment was, in turn, part of four larger assemblages. Photographic Equipment PH-382, for use by an Infantry Company, also contained a changing bag (PH-105), an exposure meter (PH-77-C) and a supply of 6 dozen cut films, 1 dozen film packs, and 10 dozen flash bulbs. Photographic Equipment PH-383, for the Infantry Regiment, included in addition to PH-104, all necessary material and supplies for processing negatives and making contact prints.

Figure 6

Camera PH-47-( ), and other principal components of Camera Equipment PH-104, the outfit most widely used by combat still photographers. (Compass is not included.)


KODAK
201288
SIGNAL CORPS U.S. ARMY

201288

This display of photo equipment used by Signal Corps photographers include a tripod, 4x5 speed graphic, long focus lens, pack adapter, cut film holders, lens shades, light filters, exposure meter, flash gun, compass, and book of caption pads. Florence, Italy. 12/9/44.

SIGNAL CORPS PHOTO
PLEASE CREDIT
RELEASED BY AUTHORITY
OF THE BUREAU OF PUBLIC RELATIONS
OR E T [illegible] PRESS CENSOR

It, like the Company outfit, contained an exposure meter, but did not include cut film nor flash bulbs.[1]

For 35mm still photography, the standard camera was an Eastman "military model" with an f:4.5 lens of 2" focal length; it was similar to the commercial "Kodak 35" except that it was provided with click stops on the diaphragm, and was finished in olive drab. Together with its carrying case, it was known as Camera PH-324. A complete portable processing outfit, which included an enlarger, copying stand, daylight developing tank, "copying lens," sunshade, filter and processing chemicals and paper, in addition to the camera, was known as Photographic Set PH-261.

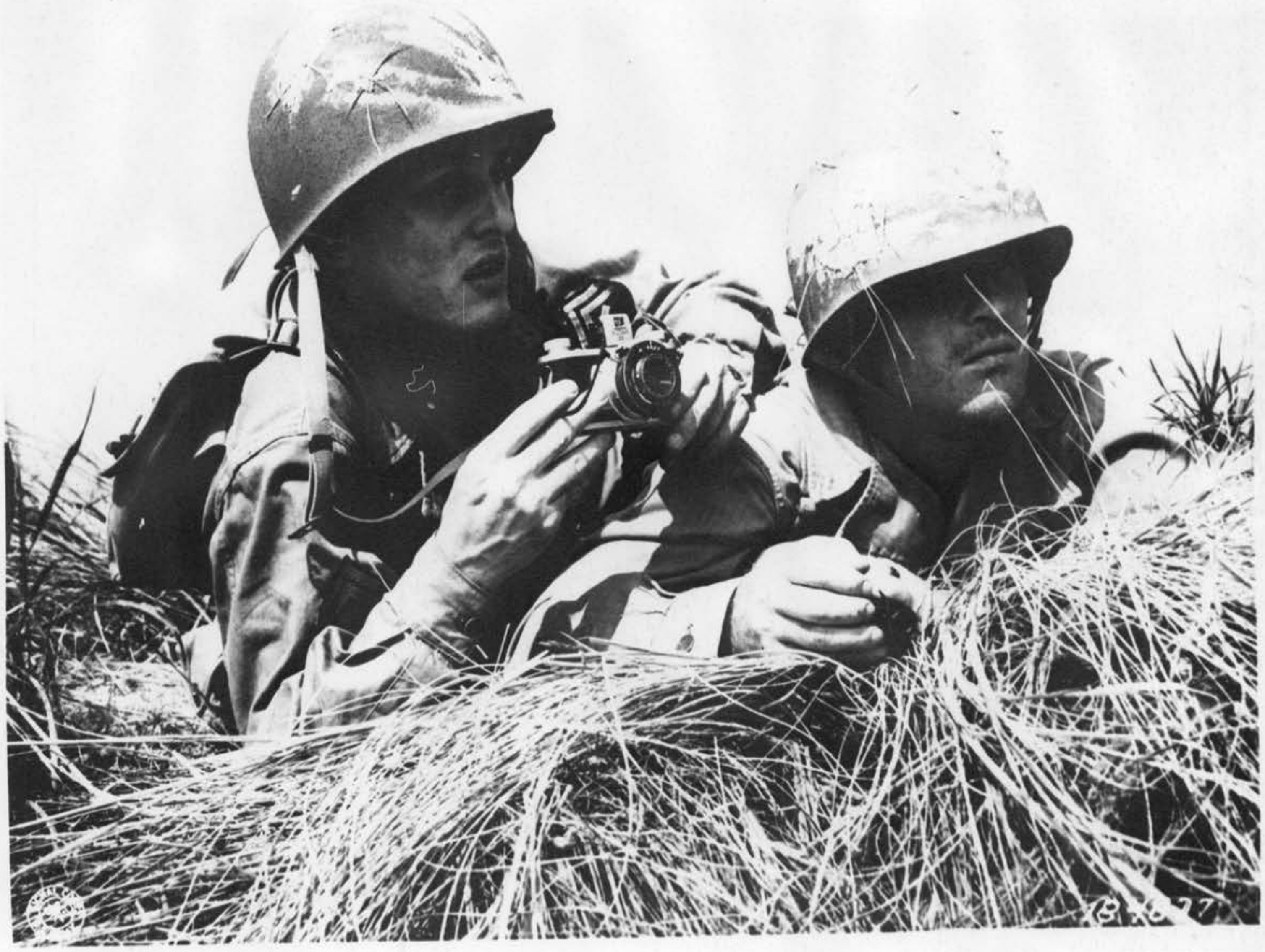
It was probably this equipment to which reference was made in such comments as, "Folding sets, including enlarger, were not liked by the photographers of Division Headquarters, 40th Infantry, New Britain, because the set of trays and equipment were too small and broke too easily for rugged handling."[2] On the whole, however, the equipment appears, from scarcity of complaints, to have been generally well liked throughout the field.

While the PH-324 was standard, it was not the only miniature camera used. Leicas (used in AN/GFQ-1) and Rolleiflexes (in AN/PFH-1) were bought from photographic supply houses and even from amateur photographers, whenever and wherever they could be found. They were used in combat in small quantities, and were well liked. These Signal Corps cameras served excellently, but they were not primarily designed for the arduous service they received in combat, not for use in

[redacted]

Figure 7a

Camera PH-324, as it was used by combat photographers. (Figures 7a and 7b are posed pictures.)



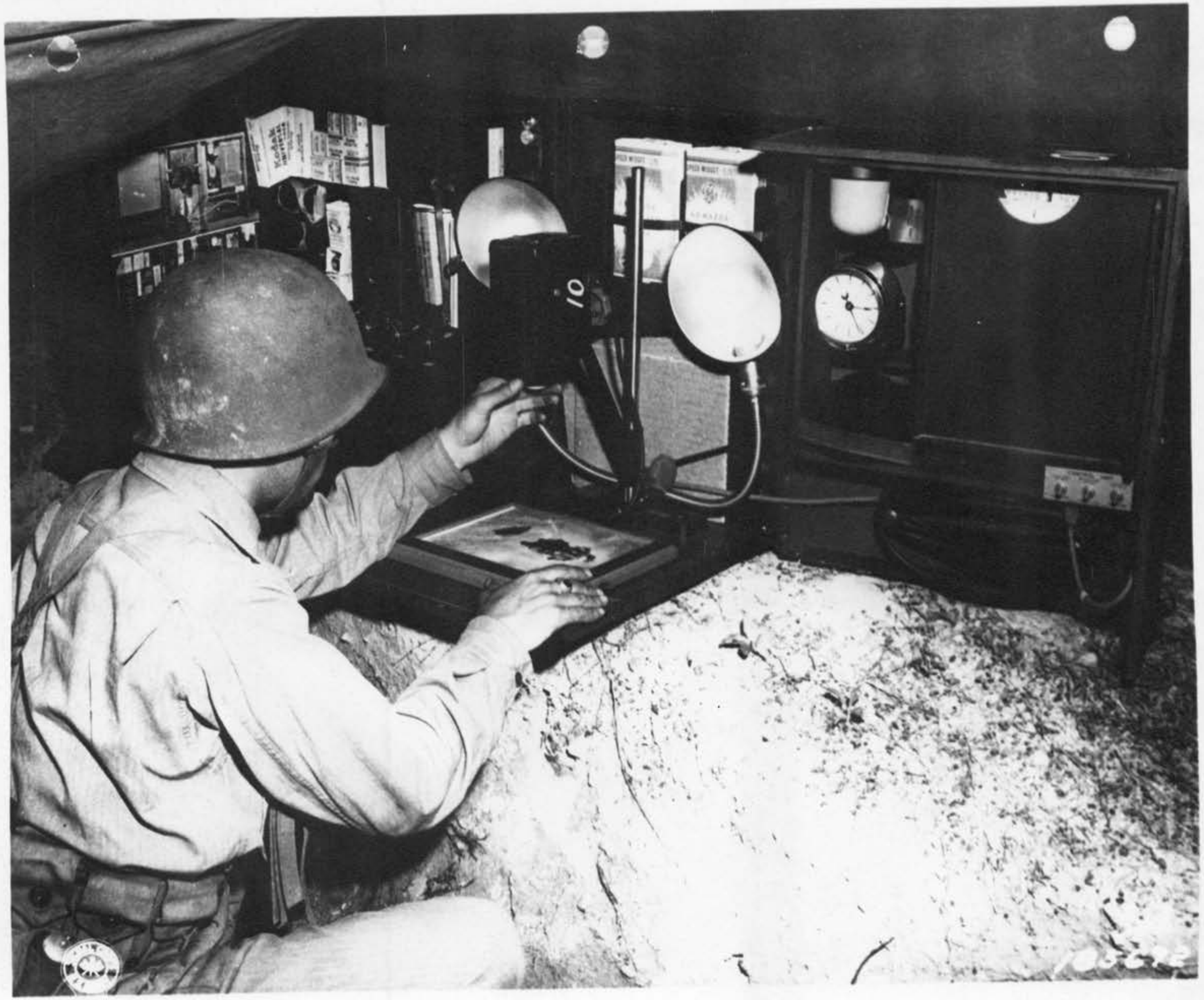
SC 184877

Pictured are T/5 Leo M. Churan and Pfc Lawrence J. Supp both of the Signal Section 1865th Unit for the purpose of showing how photographers work under combat conditions. Camp Wallace, Texas. 1943.

SIGNAL CORPS PHOTO
PLEASE CREDIT
RELEASED BY AUTHORITY
OF THE BUREAU OF PUBLIC RELATIONS
OR BY THEATRE PRESS CENSOR

Figure 7b

Sitting on the rim of his slit trench or foxhole, a soldier could work comfortable while processing and printing film with Photographic Set PH-261, which contained everything for developing and enlarging 35mm still films.


10

SC 185672
Pvt. Leon Ellner, Bronx, N.Y., demonstrates the use of the PH-261 Portable Darkroom set up within a shelter half and blanket darkroom. A shallow slit trench is dug the length of the shelter half to enable the photographer to work comfortably. 5/15/43. Camp Sutton, N.C.

4

PS PHOTO

tropical climates. They were criticized by using arms, the chief complaint being lack of ruggedness and waterproofing, and, in regard to large cameras such as the Speed Graphics, the susceptibility of the fabric shutter curtain and the leather bellows to attack by fungus.[3] The experience of a Photographic Repair Detail which performed valuable work while accompanying the advance in the Luzon operation follows:

> Ordinarily, a broken camera puts a photographer out of action until it can be sent to a rear area for repair and returned, which is usually the duration of an operation. At one time or another, the repairmen restored to service nearly half the cameras in the Luzon operation. Approximately 100 pieces of equipment were processed....Usual camera damage was from immersion in salt water, concussion or fungus. Fungus would appear, in some cases, overnight.
>
> The Section, part of the 3292nd Signal Base Maintenance Company, had its officer and two enlisted men with the advance. Four other enlisted men of the Section carried on rear echelon work.
>
> Photographers were discouraged from attempting to make their own repairs because lack of training made them prone to damage the delicate mechanisms.
>
> Greatest loss of equipment was from pilferage, not combat.
>
> Elsewhere the report states that,
>
> In the opinion of the Officer-in-Charge of the Repair Section, 50% of the Photographic Service cameras were in such condition that they should have been retired from service.[4]

Camera PH-47-( ) (the Speed Graphic) and Camera Equipment PH-104, of which it was part, were criticized as being undesirably

[redacted]

bulky and heavy, [5,6] but still the most practical for field use.[6] The Graphic's weight and bulk were particularly criticized in relation to amphibious operations, and the fact that it must be carried in open position to be ready for instant action "makes it unwieldy and causes it to tangle in jungle brush." One T/4, who had seen service in many Pacific areas, suggested that the focal plane shutter and ground glass be eliminated in order to lighten and simplify the camera, and that roll film be used instead of film pack, to eliminate the sticking together of the tabs on the pack when damp.[7]

Complaint was also made that the flash gun and synchronizer on the PH-47-( ) "simply will never work dependably; many times it has gone out of sync a few minutes after it has been adjusted by a competent camera repairman." Another photographer commented that this accessory "gets out of sync with the least rough handling." The comments do not state which of the various makes of synchronizers supplied with the PH-47-( ) gave this trouble.

In one instance, six Zeiss Super-Ikonta B cameras, owned by individual soldiers, "were found to be much more satisfactory than the Speed Graphic, and the men used their own cameras in place of the Speed Graphic whenever it was possible."[7a]

Brig. Gen. J. V. Matejka said, "The photographic set, PH-104 is not considered practicable for use on the battlefield, due to the bulkiness of the camera and carrying case."[8] He also

[redacted]

Figure 8

Signal Corps Photographic Companies included repairmen, one of whom is seen at work "somewhere in Georgia, 1942."

SIGNAL CORPS U.S. ARMY
151110

SIGNAL PHOTO

SC 151110.
T/Sgt. William Breidenbach repairs cameras for
photographer of a Signal Photographic Co.,
somewhere in Georgia, June 20, 1942.

a

wrote: "Combat experience in Tunisia has indicated that 35 mm still cameras should be of rugged construction, such as the Leica or Contax Cameras," and that telephoto lenses were absolutely necessary to secure worthwhile pictures of the battlefield under present warfare conditions, involving armored forces and their coordinated movements.

Although the most commonly used still camera, PH-47-( ), was issued equipped with range finder and synchronized flash gun, many photographers who were principally occupied with general combat assignments removed these accessories to lighten their equipment. Working outdoors in the daytime with fast film, they were able to operate by stepping down to f:8 or smaller, setting their cameras for the hyperfocal distance and estimating the exposure. This was necessary under battle conditions, when there was no time for the use of range finders or exposure meters.[9] These accessories, and the ground glass focusing feature of the PH-47-( ) series, were however, of great value in making pictures which could be posed, or which involved detailed technical shots of equipment. The ground glass back, provided on PH-47-( ), was omitted from PH-501/PF.

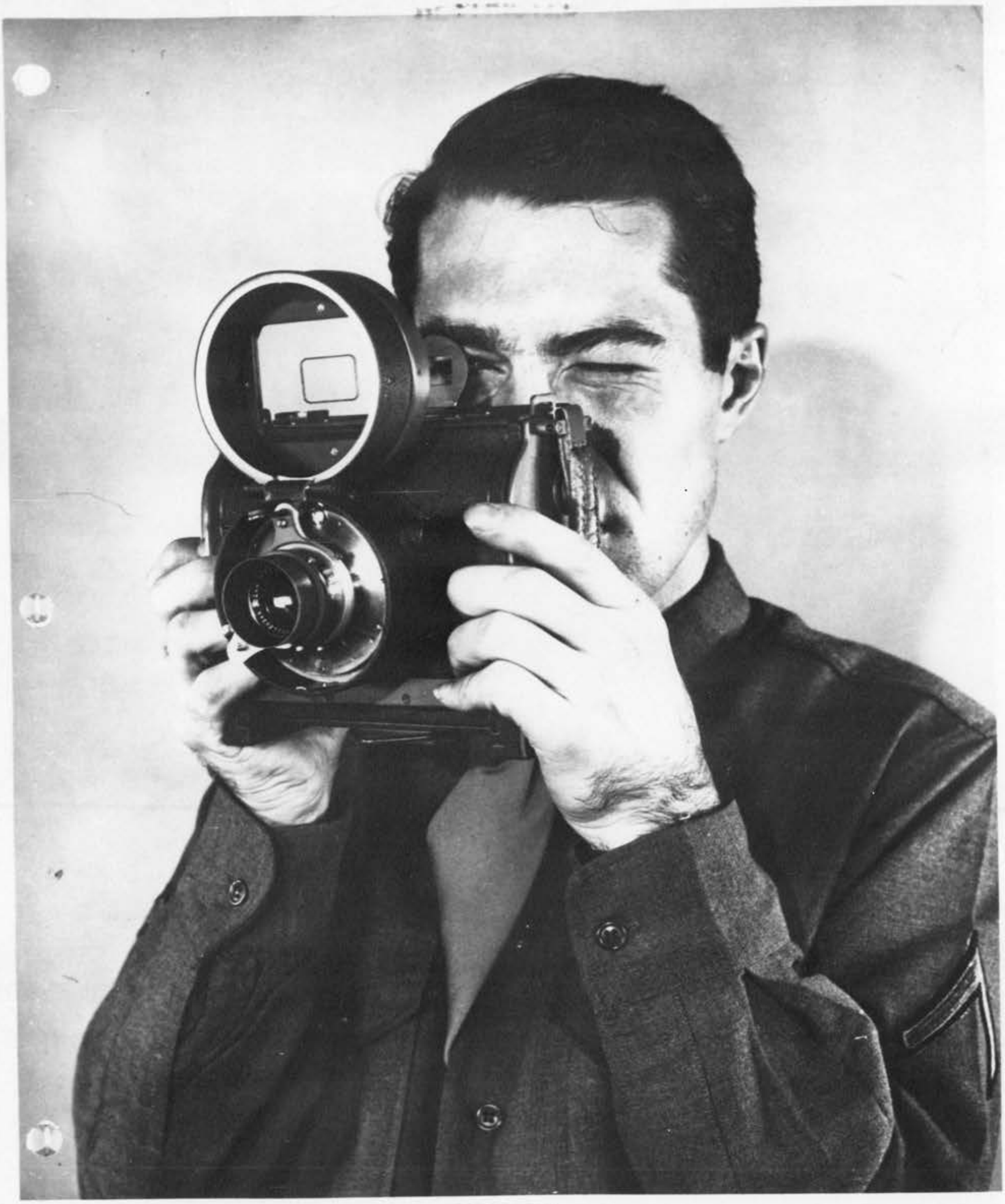
To eliminate susceptibility to the effects of moisture and fungus, Camera PH-501/PF was developed by industry at the request of the Pictorial Engineering and Research Laboratory, particularly for combat use. This instrument has a one-piece, all metal body, on which a $2\frac{1}{4}$"x $3\frac{1}{4}$"film pack holder is permanently mounted. A self-capping three-slot focal plane shutter with variable tension provides six speeds ranging from 1/25 to 1/800 second. Interchangeable lenses are provided: a 4-inch f:4.5 for general use and a 9-inch f:6.3 for long shots. The front element of the view-finder acts as a lens cap, affording dust protection, as no eveready case is used. The camera has no bellows or other leather parts, and so is highly resistant to fungus. A case and watertight container are provided to protect the camera between assignments.

Some photographers disliked camera PH-501/PF, principally because its $2\frac{1}{4}$" x $3\frac{1}{4}$" negative size, as compared with the 4" x 5" size of the standard PH-47-() Speed Graphics, was a trifle small for satisfactory contact prints. Other complaints were that it was inconvenient to use filters, that parallax was bad on close-ups, and that difficulty was experienced in becoming used to the long travel of the shutter release, which gives the user the impression of having released the shutter when he has only opened the interior self-capping element. On the other hand, the same report stated that this camera "proved superior for that type of operation (i.e., combat in rugged terrain-) because of its lightness and protection of its working parts."[10]

Other comments from the field criticized the view finder as showing larger coverage than was had on the film, the slowest

Figure 9

Viewfinder of specially designed combat Camera PH-501/PF could be folded to protect lens. All-metal body afforded ruggedness and freedom from effects of fungus.



shutter speed -- 1/25 second -- as inadequate for jungle work,[11] the bakelite release button as being exposed and easily broken, the shutter curtain as susceptible to mildew, and the size and weight as greater than desirable for the film area.[12]

Although for use in theaters, Camera Set AN/TFQ-6 is described in connection with the activities of PERL, rather than here, for it was engineered for use by medical personnel, not by Signal Corps photographers. It is a single-lens reflex, with a synchronized 1/25,000 second flash tube built to surround the lens. It had not been standardized nor issued when the war ended.

C. Motion Picture Photographic Equipment.

Battle experience with motion picture cameras was much like that recorded concerning still equipment: lack of moisture-proofing and of ruggedness were the major complaints concerning the commercial cameras which the Army used. While sufficiently sturdy for ordinary work, the cameras suffered considerably when photographers leaped into foxholes, the camera going in one direction and the cameraman in another -- or, sometimes, serving as a shock absorber for him.[13]

Listed in the 1940 Signal Corps General Catalog as "no longer procured" were Cameras PH-140 and PH-141, 35 mm press type motion picture cameras, adopted during peace time. These were still being carried in the 1942 catalog, but in addition there were several others, of which those in the PH-330-( ) series were suitable for combat use. These were Camera PH-330-A, a Bell & Howell Eyemo Model K, PH-330-E and PH-330-G, Models 71 O and 71 Q, respectively, of the same make. The former was spring driven only, the latter had in addition an accessory 12-volt storage battery driven motor. Both were built with offset lens turrets, and used 35 mm film. To supplement these cameras, and to replace them when production was inadequate, two 16 mm cameras were procured.[14] Of these, PH-430, was a Cine Kodak Special with three interchangeable lenses ranging from a 25 mm f:1.9 to a 6" f:4.5, a tripod, and a carrying case. The other, PH-431, was an Eastman Magazine Cine Kodak, provided with comparable accessories. A few 16 mm Bell & Howell cameras were also in use, though not to a large extent.[15]

The value of 16 mm equipment has been questioned. For example, one report stated that the 35 mm Eyemo (model not cited) could be used almost anywhere a 16 mm camera could be taken.[16] The PH-430 was termed "mechanically too delicate for field work," and the PH-431 "too flimsy." The same report stated that 35 mm could be processed in the theater, screened immediately, and retakes or further footage ordered. There were no such facilities for processing 16 mm.

On the other hand Brig. Gen. J. V. Matejka wrote, "It is recommended that if processing facilities can be arranged, the

Figure 10a

In enemy country — Germany — one soldier standing by while the other films action. Use of a tripod was encouraged at all times; stressed when long-focus lenses were employed, as on this PH-330-( ).

an officer, three still cameramen, and three motion picture cameramen, were sent to Africa, to cover the landing in the Torch Operation, in November. Their film was flown back to London for processing.

The rest of the 162nd was stationed in southern England. One group was detached to operate the laboratory at Cheltenham; others were assigned to the operation of eastern, western, and southern base section laboratories, and to London. In the latter part of August, the London Laboratory was moved to 35 Davies Street, later expanding to take in the entire building from 29 to 37 Davies Street, and occupying some 75,000 square feet. The equipment used was the standard T/BA items of the signal company.

In addition to the 75,000 square feet which afforded offices and laboratory facilities, there were approximately 16,000 square feet used as storage space for supplies, located in a warehouse in a suburb of London.

The APS London Laboratory was the central processing point for all still and motion pictures taken in the ETO. Its facilities were supplemented, from the latter part of 1942 onward, with commercial motion picture laboratories in London, where much motion picture film was processed.

There was a shortage of qualified personnel in the London organization. Some dozen technicians were picked up from among photographers in various Signal Service organizations, and in April 1943 the 8th Mobile Laboratory was authorized with personnel, but without equipment. These men were absorbed into the APS London Laboratory, and the equipment was similarly incorporated when it

[redacted]

became available, some months later.

The photographic personnel in the theater expanded rapidly during the summer of 1943. A number of casual officers and enlisted men arrived in July; a Photo-Mail Company and the 3rd Official Mail Section came in September; the 2nd Mobile Laboratory Unit in October; and the 165th Signal Photographic Company in December. This company was assigned to Hq, First Army, to cover its operations.

By 2 January 1944, the Army Pictorial Service Laboratory was set up as the main operating photographic organization for Theater Headquarters under the Chief, Army Pictorial Service. The Laboratory included a motion picture section which made motion picture reports for the Theater Commander and processed all motion picture film exposed in the theater. Also included was a still picture section, which supervised a group of cameramen working directly out of headquarters and processed all other still film of historical, public relations, tactical, strategic or training value. The Photo-Mail Section, handling all official photo-mail in the Theater, was also attached to this Laboratory.

In addition, the Laboratory, for reasons of security, processed all amateur film exposed by soldiers in the theater. When this service was begun in January 1943, the load amounted to some 35 rolls of film per day; within a year and a half, the volume had increased a hundred-fold, and the service was no longer feasible. The task was transferred to Army Exchange Service on 1 August 1944, and thereafter they processed it (for a fee) and censored it.

[redacted]

II-5

[redacted]

The installation of the air conditioning equipment, necessary for best photographic work, was achieved only after many delays, caused by the difficulty of obtaining British materials and labor. First steps to make this installation were taken in October 1943, but not until May 1944 did the work finally get under way. Walls were torn out in the basement of 29 Davies Street to make room for the equipment, which was to afford facilities for the processing of especially "hot" news stories and highly classified material which would be handled only by American army personnel. Of course, the laboratory went into operation without waiting for the installation to be completed, for due to unusual labor conditions and shortage of material the air conditioning was finished only after V-E Day.

By 1 January 1944 there were some 300 officers and men assigned to the Army Pictorial Service laboratory. Some of these were out as units, covering all necessary photography of the bases; some were training with the Rangers, on actual maneuvers; some were assigned to divisions and corps, with which they trained.

From the first of January until 1 June 1944, preparations were made for handling all combat film made on D-Day and thereafter. Arrangements were made for both still and motion pictures taken by combat photographers to be flown back to London for processing and censoring before the original negatives were sent to the United States. In March, the 166th Signal Photographic Company arrived and was assigned to the Third Army.

[redacted]

By 1 June 1944, arrangements for coverage had been completed. The arrival of casual personnel had increased the laboratory's strength to about 400 officers and men. A recommendation had also been made for the activation of a Signal Service Battalion to cover the overstrength of personnel assigned to the 162nd Signal Photographic Company, the 2nd, 6th and 8th Mobile Laboratory Units. On 1 August 1944, the 3120th Signal Service Battalion was activated; it consisted of the 162nd and 290th Signal Photo Companies and 3265th Signal Service Company. This combined organization contained no numbered companies. It was later known as the 3908th Signal Service Battalion and is so termed in the statistical section which follows.

Five additional units of the APS laboratory were assigned to accompany the First Army divisions in the invasion, and on D-plus-25, a laboratory detachment of about 2 Officers and 20 men was shipped to France to furnish facilities for Advanced Section communication zone activities and to process material of immediate tactical value. In October, 1944, this laboratory group, Detachment E of the 162nd Signal Photo Company, set up a small still picture laboratory in Paris and took over the direction of some French commercial motion picture laboratories. During the months of June through October 1944, all combat footage was processed in the London laboratories, but in November the Battalion Headquarters of the 3120th moved to Paris. There they processed all local still pictures, but the combat coverage continued to be shipped to London throughout the war, except when weather conditions prevented air transportation when it was processed in Paris.

In the meantime, the 165th Signal Photographic Company was operating with the First Army, and the 166th with the Third Army. The 167th, which arrived in July 1944, was assigned to Twelfth Army Headquarters and operated as a mobile reserve photographic company, sending units of 1 officer and 6 men to points requiring coverage. In addition, the Twelfth Army Group had the 3264th Signal Service Company, a mobile reserve photographic company. When the Ninth Army was activated under the Twelfth Army Group it was assigned members of these two companies. Soon thereafter the 168th Signal Photographic Company arrived from the United States and was assigned to the Ninth Army.

When southern France was invaded, in September 1944, the Seventh Army came under control of ETO, bringing with it the 163rd Signal Photographic Company, which it had picked up in Africa. By December 1944, the London and Paris Laboratories were processing all the work of eight photographic companies. In January 1945, the 198th Signal Photographic Company arrived and was assigned to the Fifteenth Army, and its film was added to the laboratories' load.

A unit of 1 officer and 8 men was sent out by the 3908th Signal Service Battalion with the First Allied Airborne Army in the invasion of Holland. The crossing of the Rhine was similarly covered by men sent out from the battalion to supplement the coverage by the combat photographers with the participating troops. The same was true of the German break-through at Bastogne, which two Photo Units covered. During the invasion of Germany, several

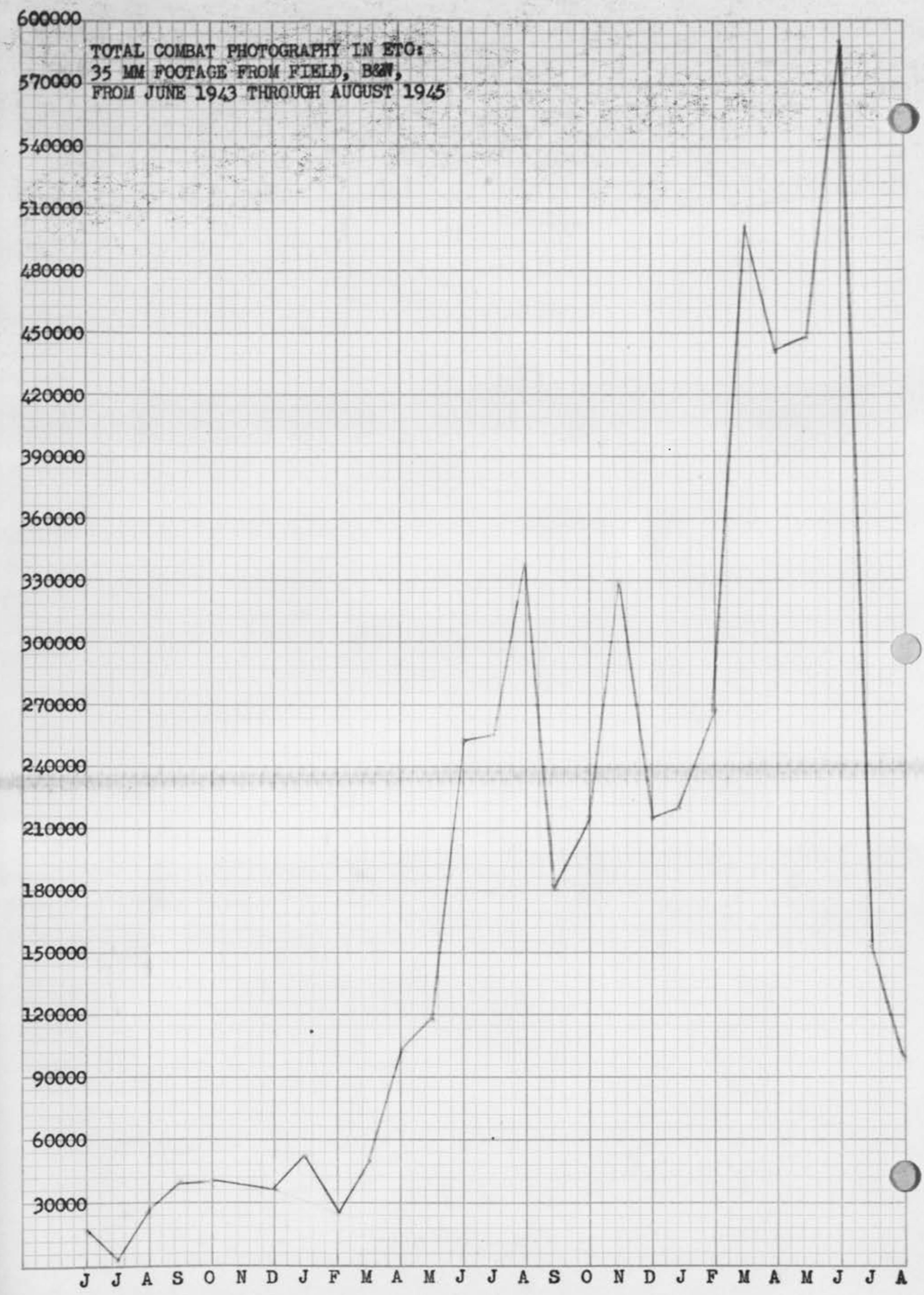
[redacted]

other special units were sent out from the Paris laboratory to cover the action, the capture of prisoners, the conditions in captured concentration camps, etc. One officer and two cameramen were assigned to cover the activities of General Dwight D. Eisenhower throughout his stay in the theater. Groups of officers and men from the 3908th Signal Service Battalion also covered American base section activities in communication zones, and such special events as the signings of the German surrenders at Rheims and Berlin, as well as operating in almost all major ports. After the surrender, a large unit of about 30 men was stationed at Assembly Area Command, Rheims, for coverage of redeployment of troops to the Pacific. Another unit accompanied the Nightlight Operation -- a token force which landed in Norway on V-E Day to prevent any possible uprising. As the laboratory had base sections at Marseilles, Deauville, Brussels, and Rheims, rear area activities were covered by photographers working out of these installations. Later, additional laboratory bases were established in Berlin, Weisbaden, Bremen and Vienna.

A critique school for photographers was operated in Paris. There cameramen back from the front lines were given comment on their work by experts drawn from their own ranks. This was of great value to them in their later work and had a great effect in boosting their morale.

In December 1945, the majority of the men returned to the United States, arriving just four years after Pearl Harbor. Low point men were left to cover the occupation and recreational areas.

[redacted]



TOTAL COMBAT PHOTOGRAPHY IN ETO:
35 MM FOOTAGE FROM FIELD, B&W,
FROM JUNE 1943 THROUGH AUGUST 1945

About 700 officers and men returned, with some 300 remaining in Europe.

The courage displayed by photographers was great; many were decorated, many became casualties. They worked and fought along with the combat troops, sometimes discarding their cameras to pick up weapons, sometimes unarmed. Most of them carried sidearms — a captured Luger was a sort of badge of honor.

While it is impossible to tell the complete story of each cameraman's adventures, the following statistical section will give some idea of the scope of the operation, and from this the magnitude of the task may be deduced.

B. Statistics on Still Picture Production in ETO[3]

United Kingdom. Operations of photographic organizations in the European Theater did not differ greatly from those in Italy, insofar as front line activities were concerned, except that the climate was somewhat less destructive of equipment, and the photographer had less opportunity for pictures of hand-to-hand fighting.[4] Typical coverage afforded an infantry division consisted of detachments from four photographic companies,[5] each attached to the Army with which the division was operating at the time.

The flow of negatives was ordinarily from the combat area to division headquarters, to Army group headquarters, to an airfield, and finally to Army Pictorial Service in London for processing and distribution to the headquarters of Army, Corps and Division, to Army Pictorial Service in Paris, to SHAEF, and to the United States.[6]

Two main distribution sections, one in London, the other in Paris, distributed most of the work, including all combat stills. There was a lesser distribution by Base Sections (e.g., U.K. Base, Normandy Base, Delta Base, etc.) which had 3908th Battalion laboratory units and which sent out their own local material, except for public relations pictures and other miscellaneous work sent to London or Paris for processing.[7]

A table showing standard distribution appears herewith. In addition, prints were sometimes ordered from the Battalion file room, or special prints were made for special uses, such as by OTI, QMC, etc. In connection with the foregoing figures, it must be recognized that not all of the organizations reported were receiving prints during the early months of the period.

Until November, 1944, when the Paris Still Laboratory and Distribution Section was opened, the London Distribution Section was the only one in operation. Most of its work dealt with combat pictures; it received "almost all" the undeveloped negatives from the field.[13] In September, 1945, it was combined with the Paris Still Laboratory, after having processed and distributed approximately 632,000 pictures. The Paris Section processed and distributed 494,075 in the period from November 1944 through August 1945. The report, discussing the wide service afforded by the Battalion, points out that 38,431 (or 11.1%) of the prints were sent to some 135 organizations which, while not on the regular distribution list, were occasional "customers" for photographs.

SOP ON PRINTS[8]

TWELFTH ARMY GROUP (COMBAT): Ten 4" x 5" prints and seven 8" x 10" prints from all negatives used, except hometown pictures.

4" x 5" PRINTS
Six to SigO, 12th Army Group, Att: Photo Officer
Three (plus original negative) to OCSigO, Washington, Att. Army Pic. Div.[9]
One to SHAEF Censors, London

8" x 10" PRINTS
Two to SigO, 12th Army Group, Att: Photo Officer
One to Hq, 3908 Sig Svc. Bn., Com Z (File)
One to Director, Army Pic. Div., Com Z
One to G-2, U.K. Base
Two to OWI, Thru PRO, SHAEF (Rear)

DISCARDED NEGATIVES
Returned to SigO, 12th Army Group, Att: Photo Officer

RADIOPHOTOS
One 7" x 9" soft, light print to Radiophoto Station
One 7" x 9" regular print to SHAEF Censors
One 8" x 10" normal print to Stars & Stripes

HOMETOWN
Three 5" x 7" prints and ten 4" x 5" prints from all negatives used for Hometown purposes.

4" x 5" PRINTS
Six to SigO, 12th Army Group, Att: Photo Officer
Three (plus original negative) to OCSigO, Washington, Att: Army Pic. Div.
One to HQ, 3908 Sig Svc. Bn., Com Z (File)

5" x 7" PRINTS
Three to PRO, SHAEF (Rear)

SEVENTH ARMY (COMBAT): Seven 4" x 5" prints and five 8" x 10" prints from all negatives used, except hometown pictures.

4" x 5" PRINTS
Three to SigO, 7th Army, Att: Photo Officer
Three (plus original negative) to OCSigO, Washington, Att: Army Pic. Div.
One to SHAEF Censors, London

SOP ON PRINTS (Continued)

8" x 10" PRINTS
- One to HQ 3908 Sig. Svc. Bn., Com Z (File)
- Two to OWI, THRU PRO, SHAEF, (Rear)
- One to Director, Army Pic. Div., Com Z
- One to G-2, U.K. Base

DISCARDED NEGATIVES
- Returned to SigO, 7th U.S. Army, Att: Photo Officer

RADIOPHOTOS
- Same as for 12th Army Group

HOMETOWN
- Three 5" x 7" and seven 4" x 5" prints from all negatives used for Hometown purposes.

4" x 5" PRINTS
- Three to SigO, 7th U. S. Army, Att: Photo Officer
- Three (plus original negative) to OCSigO, Washington, Att: Army Pic. Div.
- One to HQ, 3908 Sig. Svc. Bn. Com Z (File)

5" x 7" PRINTS
- Three to PRO, SHAEF (Rear)

FIRST ALLIED AIRBORNE ARMY (COMBAT): Six 4" x 5" prints and five 8" x 10" prints from all negatives used, except Hometown pictures

4" x 5" PRINTS
- Two to SigO, 1st Allied Airborne Army, Att: Photo Officer
- Three (plus original negative) to OCSigO, Washington, Att: Army Pic. Div.
- One to SHAEF Censors, London

8" x 10" PRINTS
- One to Director, Army Pic. Div., Com Z
- One to HQ, 3908 Sig Svc Bn, Com Z (File)
- One to G-2, U.K. Base
- Two to OWI thru PRO, SHAEF (Rear)

DISCARDED NEGATIVES
- Other than Hometown: From all negatives except those technically faulty, two 4" x 5" prints made and sent with negative to SigO, 1st Allied Airborne Army, Att: Photographic Officer. No Captions nor ETO negative numbers.

[redacted]

SOP ON PRINTS (Continued)

Hometown: Forwarded as above.

RADIOPHOTOS
Same as for 12th Army Group

HOMETOWN:
Six 4" x 5" prints and three 5" x 7" prints from all negatives used for hometown purposes.

4" x 5" PRINTS
Two to SigO, 1st Allied Airborne Army, Att: Photo Officer
Three (plus original negative to OCSigO, Washington, Att: Army Pic. Div.
One to HQ, 3908 Sig. Svc. Bn., Com Z (File)

5" x 7" PRINTS[10]
Three to PRO, SHAEF, (Rear)

[redacted]

COMBINED BATTALION DISTRIBUTION OF PRINTS[11]
JUNE 1943 THROUGH AUGUST 1945

Washington, W. D.	112,378
File	76,165
Identification	183,857
SHAEF PRO	51,890
Com Z PRO	65,372
U. K. Base PRO	24,568
Censor	52,528
G-2 ETOUSA	39,290
Army Pictorial Div.	18,715
Director, APD, ETOUSA[12]	5,852
12th Army Group	197,641
6th Army Group	10,187
1st Airborne Army	3,803
1st US Army	1,065
163rd Sig Photo Co	14,861
OWI	83,807
Base Sections	50,217
Stars & Stripes	9,661
Historical Section	15,827
Combat Organizations	18,496
OTI	112,722
CWS, ORD, QM, ENG, TC	4,690
American Embassy	254
CIOS	6,944
TIIC	1,049
I & E Div	294
Medical Corps	12,971
Air Corps (U.K.)	5,236
Miscellaneous	38,976
TOTAL	1,219,316

The United Kingdom Base Laboratory, operating separately from the London and Paris laboratories, maintained its own distribution section to take care of United Kingdom photographic coverage and distribution, leaving these laboratories free for combat work. Due to greatly decreased requirements, it was combined with the London laboratory in July 1945, but during the January-through-July period, it had distributed 85,418 pictures.[14]

The operation of the laboratories was in no way unusual. Negatives were developed and submitted, without prints, to the Still Picture Editor, who decided which should be printed, and which discarded as technically inferior, as of little or no interest, as duplicating other material, etc. Selected negatives were printed and returned to the editing desk for captioning and the assignment of permanent file numbers. The pictures were then censored and stamped, and turned over to the Distribution Section, which forwarded them as expeditiously as possible to their destinations. File prints were classified as to subject matter, locale, organization, etc., and cross indexes were prepared before the prints were placed in the Theater files.

In considering the following figures on distribution, editing, filing and caption writing in the London and Paris laboratories, it should be noted that all file prints were classified in Paris after 1 January 1945, and therefore are not included in the London figure subsequent to that date, nor are negatives and prints shown as being distributed prior to May 1944.[15]

[redacted]

LONDON (January 1943 through July 1945)	
Captions Written	77,043
Prints Filed	77,043
Negatives & Prints Distributed	1,489,838

PARIS	
Captions Written	55,508
Prints Filed	48,451
Negatives & Prints Distributed	
Number of Orders	7,873
Number of Prints	477,947
Negatives Edited	
Number developed	32,573
Number printed	25,256

In addition to the large laboratories just discussed, figures are available on the production of a number of smaller organizations. These figures, while not complete, are indicative of the magnitude of the operations and are therefore quoted.[16] The following figures represent the production of the organizations listed:

London Still Laboratory
U. K. Base Laboratory
Paris Still Laboratory
Paris Portrait Studio
Paris Identification Studio
Delta Base Laboratory
Chanor Base Laboratory
Southern Base Section Laboratory
Section Laboratory Eastern Base
Western Base Section Laboratory
N. Ireland Dist. W. Base Laboratory
HQ Depot O-617 Laboratory
Assault Training Center Laboratory
Clyde Area Port Laboratory

[redacted]

Assembly Area Command Laboratory
Berlin Group Control Council Laboratory
V Corps Laboratory
Fifth Infantry Division Laboratory

SUMMARY OF WORK
DONE IN ABOVE LABORATORIES

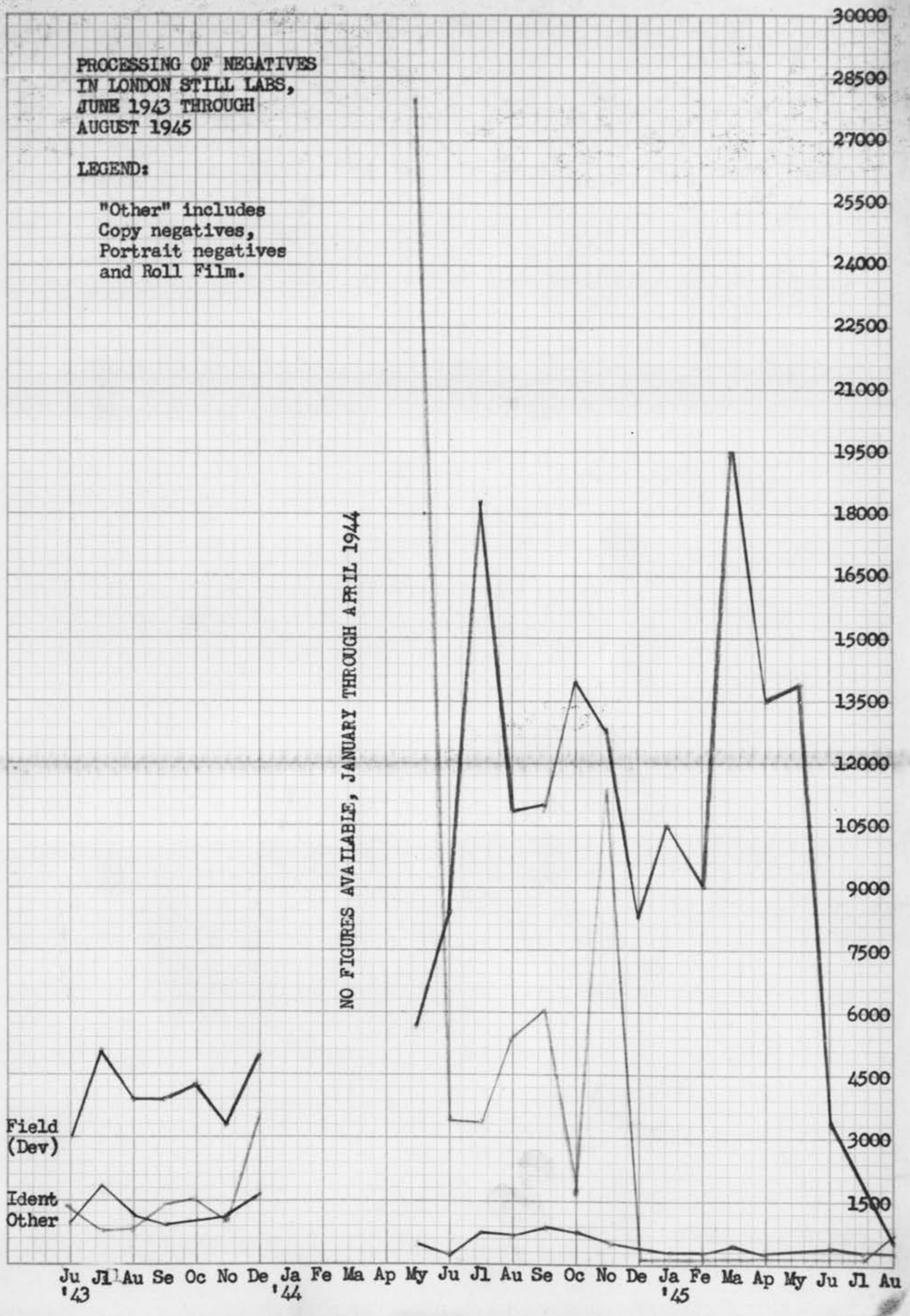
NEGATIVES	
Field Negatives Developed	259,690
Copy Negatives	22,090
Roll Film	29,069
Identification Negatives	134,824
Portrait Negatives	3,698
TOTAL	449,371
PRINTS	
Contact Prints	1,058,592
Enlargements	953,052
Slides	34,070
Identification Prints	218,796
Portrait Contact Prints	4,845
Portrait Enlargements	7,904
Radio Transmissions	5,449
4" x 5" Color Film	1,921
Roll Color Film	29
TOTAL	2,284,658

The London Still Laboratory had two main missions. Prior to the invasion of Europe in June 1944, its primary mission was training and serving the needs of the various commands in invasion preparations. Invasion month was low in production, for the laboratory processed only those pictures directly connected with the invasion. Thereafter, its main mission was the processing and distribution of film exposed by combat photographic companies, and flown to London. As it "received the great majority of combat film",[17] a graphic study has been prepared to show the shifting work load throughout the 27 months period reported.

The U. K. Base Laboratory, formerly known as the HQ, SOS, laboratory when located at Cheltenham, England, became the base laboratory when moved to London in October 1944,[18] occupying part of the London Still Laboratory's building at 35 Davies Street. In July 1945 it was combined with the London laboratory, but was separated again in August, when Company A, 3908 Sig Svc Bn (GHQ Pictorial) transferred to Paris. It assisted during the pre-invasion training period, and after the invasion became the main laboratory for pictures of non-combat operations of service troops stationed in the United Kingdom, thus freeing the London Still Laboratory for concentration upon combat coverage. After August 1945 it was the only official Signal Corps laboratory remaining in the United Kingdom.

In addition, there were a number of smaller laboratories attached to various organizations. These were:

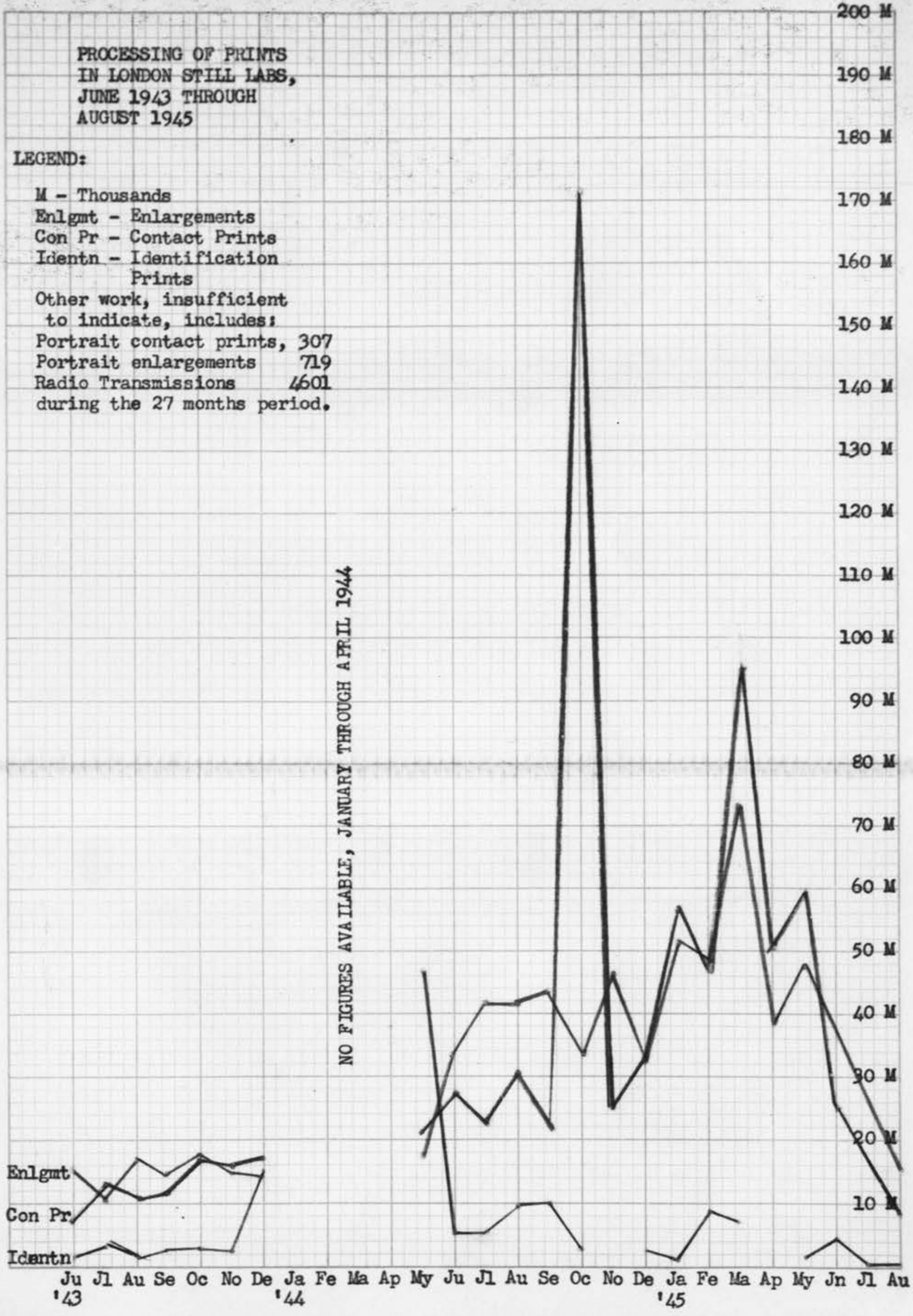
Southern Base Section
Eastern Base Section
Western Base Section
N. Ireland Dist. Western Base Section
HQ Depot O-617
Assault Training Center
Clyde Area Port
V Corps
Fifth Infantry Division



PROCESSING OF NEGATIVES IN LONDON STILL LABS, JUNE 1943 THROUGH AUGUST 1945

LEGEND:

"Other" includes Copy negatives, Portrait negatives and Roll Film.



PROCESSING OF PRINTS
IN LONDON STILL LABS,
JUNE 1943 THROUGH
AUGUST 1945

LEGEND:

M - Thousands
Enlgmt - Enlargements
Con Pr - Contact Prints
Identn - Identification Prints
Other work, insufficient to indicate, includes:

Portrait contact prints,	307
Portrait enlargements	719
Radio Transmissions	4601

during the 27 months period.

NO FIGURES AVAILABLE, JANUARY THROUGH APRIL 1944

200 M
190 M
180 M
170 M
160 M
150 M
140 M
130 M
120 M
110 M
100 M
90 M
80 M
70 M
60 M
50 M
40 M
30 M
20 M
10 M
Enlgmt
Con Pr
Identn
Ju '43
Jl
Au
Se
Oc
No
De
Ja '44
Fe
Ma
Ap
My
Ju
Jl
Au
Se
Oc
No
De
Ja '45
Fe
Ma
Ap
My
Jn
Jl
Au

All operated in the United Kingdom "many....since early 1942."[19]

> These labs, and all the photographers, for that matter, began in the months just before the invasion to regroup tactically in order to accompany the invasion.....This period /January through May 1944/ represented an extensive training of combat and service troops, photographers included. After June 1944, the /3908 Signal Service/ Battalion /sic/ was primarily interested in actual combat pictures.[19]

Figures available relative to the operation of these laboratories are insufficiently complete to warrant their inclusion in detail, covering only June through December 1943. Statistics covering operations are available for only two periods. They may be summarized as follows, the months being inclusive:[20]

NEGATIVES	1943 June - Dec	1945 Feb - Aug
Field Negatives Developed	3,958	9,194
Copy Negatives	1,763	
Roll film		383
Identification negatives	11,531	35,148
Portrait negatives	245	1,901
TOTAL	17,497	46,626
PRINTS		
Contact Prints	20,379	17,237
Enlargements	11,422	28,420
Identification prints	22,655	39,242
Portrait contact prints	3	1,034
Portrait enlargements	32	2,728
TOTAL	54,491	88,661

France. The Paris Still Laboratory, at 64 Boulevard Suchet, Paris, France, was the principal Signal Corps still pictures laboratory on the European continent.[21] It occupied the two-story building at that address since its opening in November 1944, and from then until August 1945 it never produced less than 20,000 prints per month, the peak being reached in May of that year, when 76,019 prints and 11,908 negatives were processed. The building housed the editing and distribution departments, and files, in addition to the laboratory, in order to facilitate the rapid production of news material; it operated on three eight-hour shifts.

In March 1945 it commenced processing Agfa-Ansco color film, principally on an experimental basis.

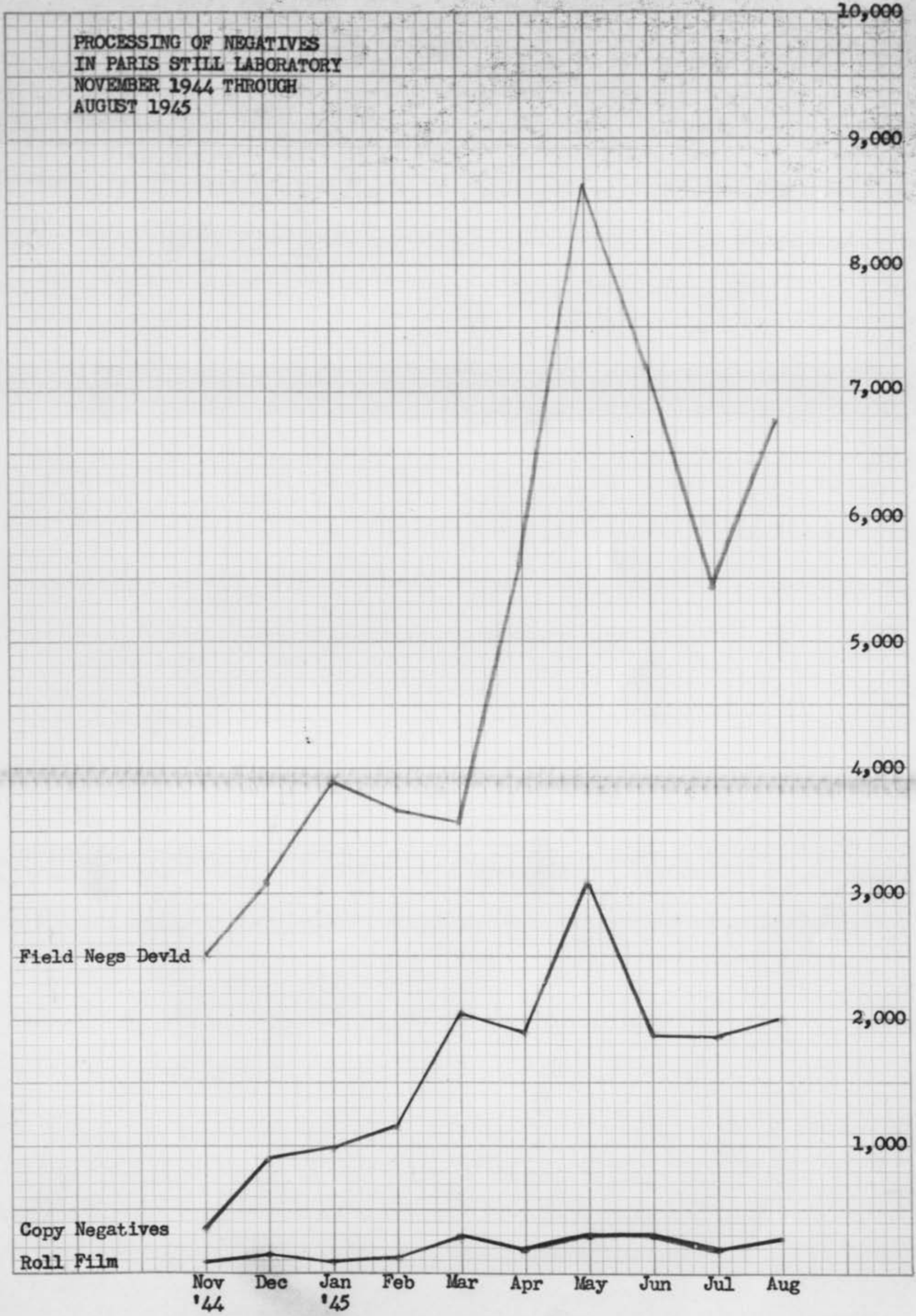
The accompanying graphs illustrate the flow of work at the Paris Still Laboratory.

Paris was also the location of two other Signal Corps photographic activities: The Paris Portrait Studio, established in December 1944 at 49 Boulevard Suchet, and the Paris Identification Laboratory and Studio.[22]

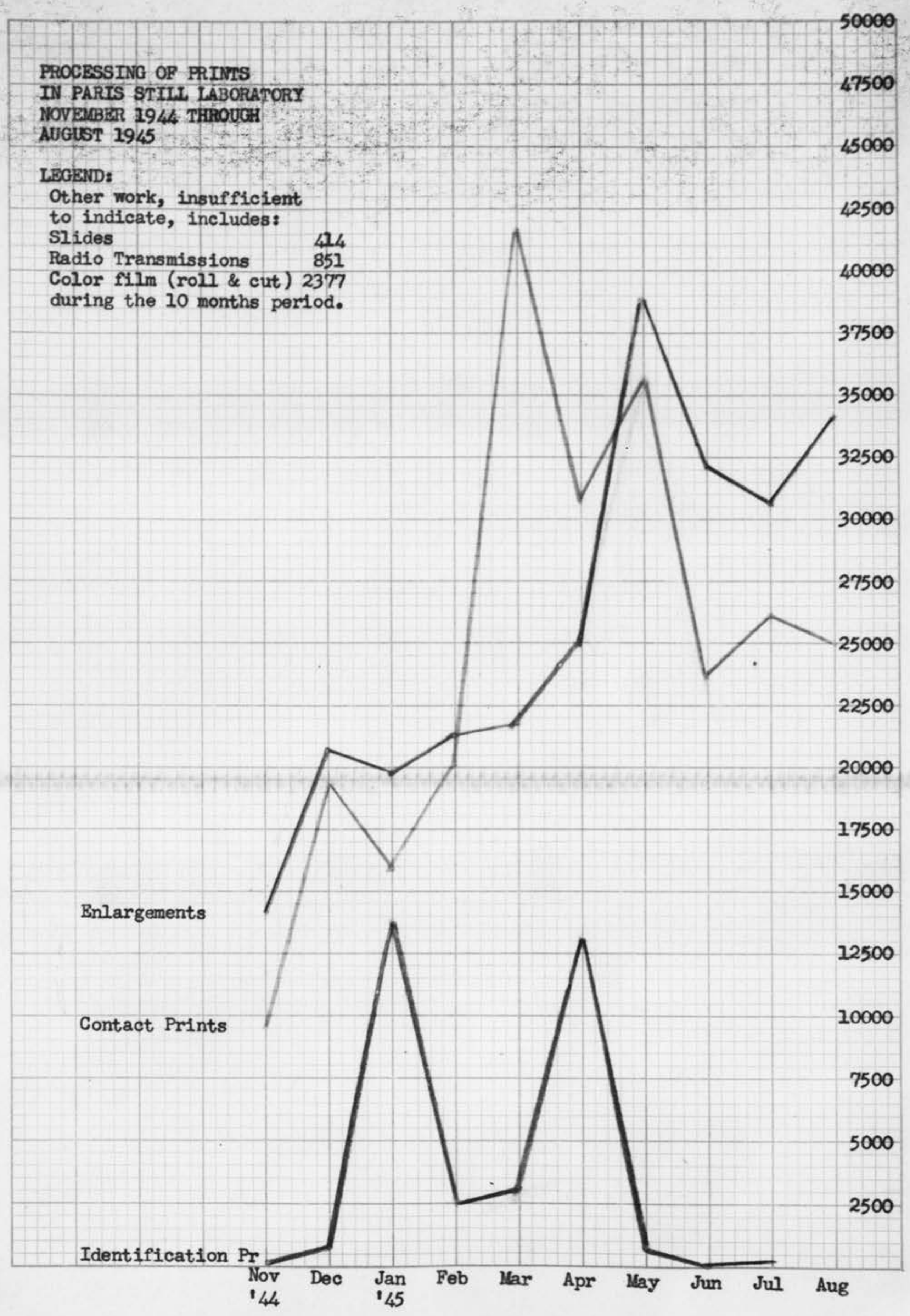
The portrait studio, established to make pictures of general officers (who were required, by theater directive, to have portraits made) and of others who needed such photographs, turned out the following work from December 1944 to August 1945, inclusive.

Portrait negatives	1123
Portrait contact prints	4858
Portrait enlargements	6423

During the same period, the identification laboratory and



PROCESSING OF NEGATIVES
IN PARIS STILL LABORATORY
NOVEMBER 1944 THROUGH
AUGUST 1945



PROCESSING OF PRINTS
IN PARIS STILL LABORATORY
NOVEMBER 1944 THROUGH
AUGUST 1945

LEGEND:
Other work, insufficient to indicate, includes:

Slides	414
Radio Transmissions	851
Color film (roll & cut)	2377

during the 10 months period.

studio not only operated at its base, but also sent out road teams to make pictures in various parts of Europe. Its production was in addition to the identification photography handled at the various Base Section laboratories, and from December 1944 through August 1945, totaled:

Identification negatives	21,233
Identification prints	36,418

The Chanor Base Section Laboratory was established in Deauville, France, to process all the Normandy Base Section work except PRO pictures, which were sent to the Paris Still Laboratory for the regular distribution service. In July 1945, when Normandy Base Section combined with Channel Base Section to form the Chanor Base Section, it moved to Brussels, Belgium, with the new Headquarters. The following table shows its production for April 1945 through August 1945:

NEGATIVES	
Field negatives developed	547
Copy negatives	56
Roll film	64
Identification negatives	806
Portrait negatives	4
PRINTS	
Contact prints	3170
Enlargements	194
Identification prints	1656
Portrait (contact & enlargements)	8

The Delta Base Laboratory, official laboratory for the Delta Base Section at Marseilles, France, was needed to afford prompt photographic service in that area, due to the great distance from Paris.[23] Its production during May 1945 through August 1945 was as follows:

NEGATIVES

Field Negatives Developed	1206
Copy Negatives	75
Roll film	18
Identification Negatives	3370

PRINTS

Contact Prints	5187
Enlargements	1409
Identification Prints	3660

The Assembly Area Command Laboratory was opened in Reims, France, to service the Assembly Area Command, and to aid in telling, photographically, the story of redeployment.[24] Its production for the months of June, July, and August 1945, was:

NEGATIVES

Field Negatives Developed	500
Copy Negatives	96
Roll Film	83
Identification Negatives	439

PRINTS

Contact Prints	1913
Enlargements	2780
Identification Prints	189

There was also established the Berlin Group Control Council Laboratory, for the use of the Berlin Group Control Council. Other than that the laboratory and its personnel were planned to become a part of the Army of Occupation, stationed in Berlin, no information is available.

An overall view of still picture activities of the 3908th Signal Service Battalion is given by the accompanying charts. The compiler of the figures upon which they are based points out that while figures are incomplete they "are sufficient to show the general trend of production in the majority of the Battalion products."[25] The four months period December 1943 through April 1944 is omitted, as figures were unavailable.[26]

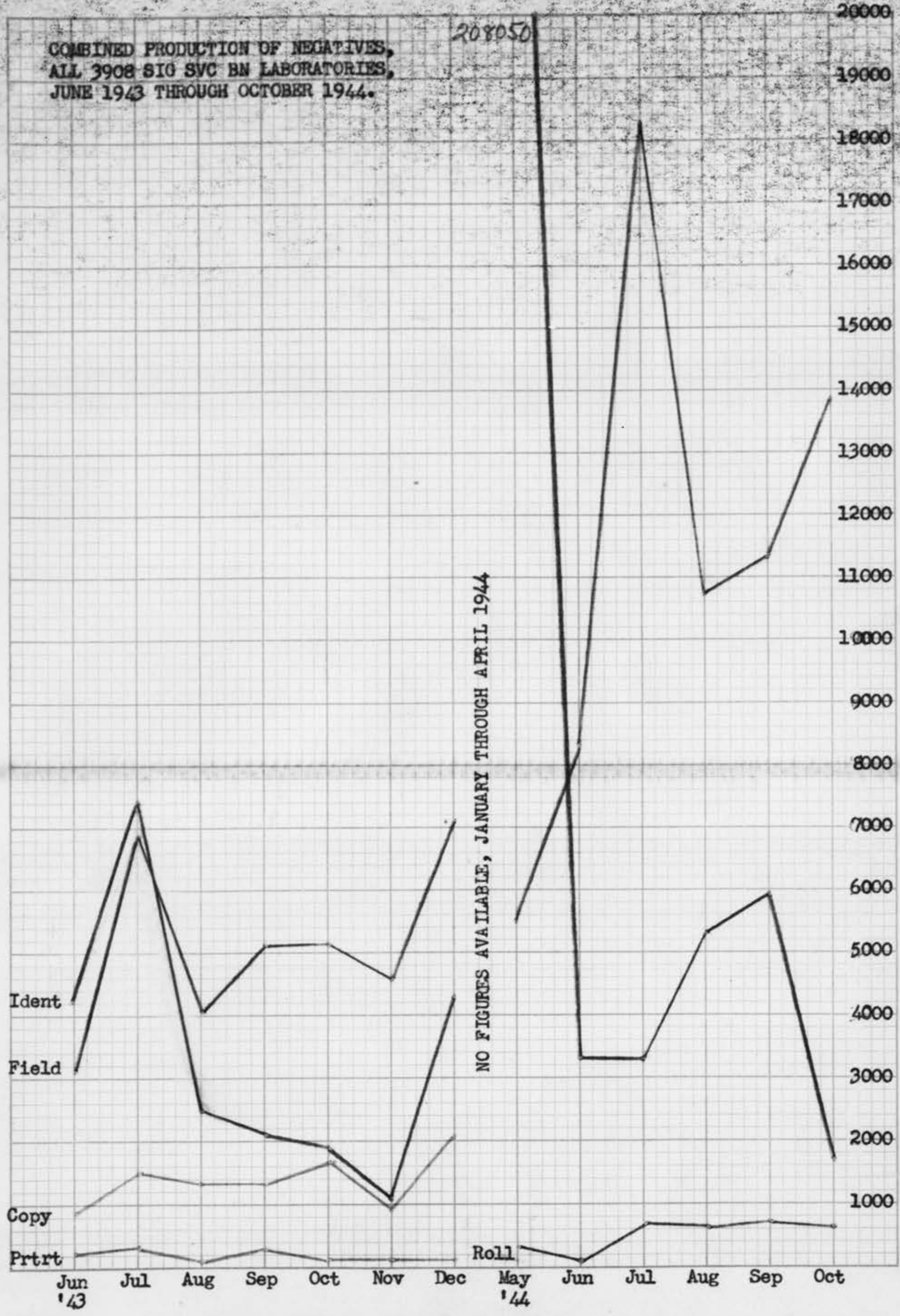
The laboratories included in this series of charts are:

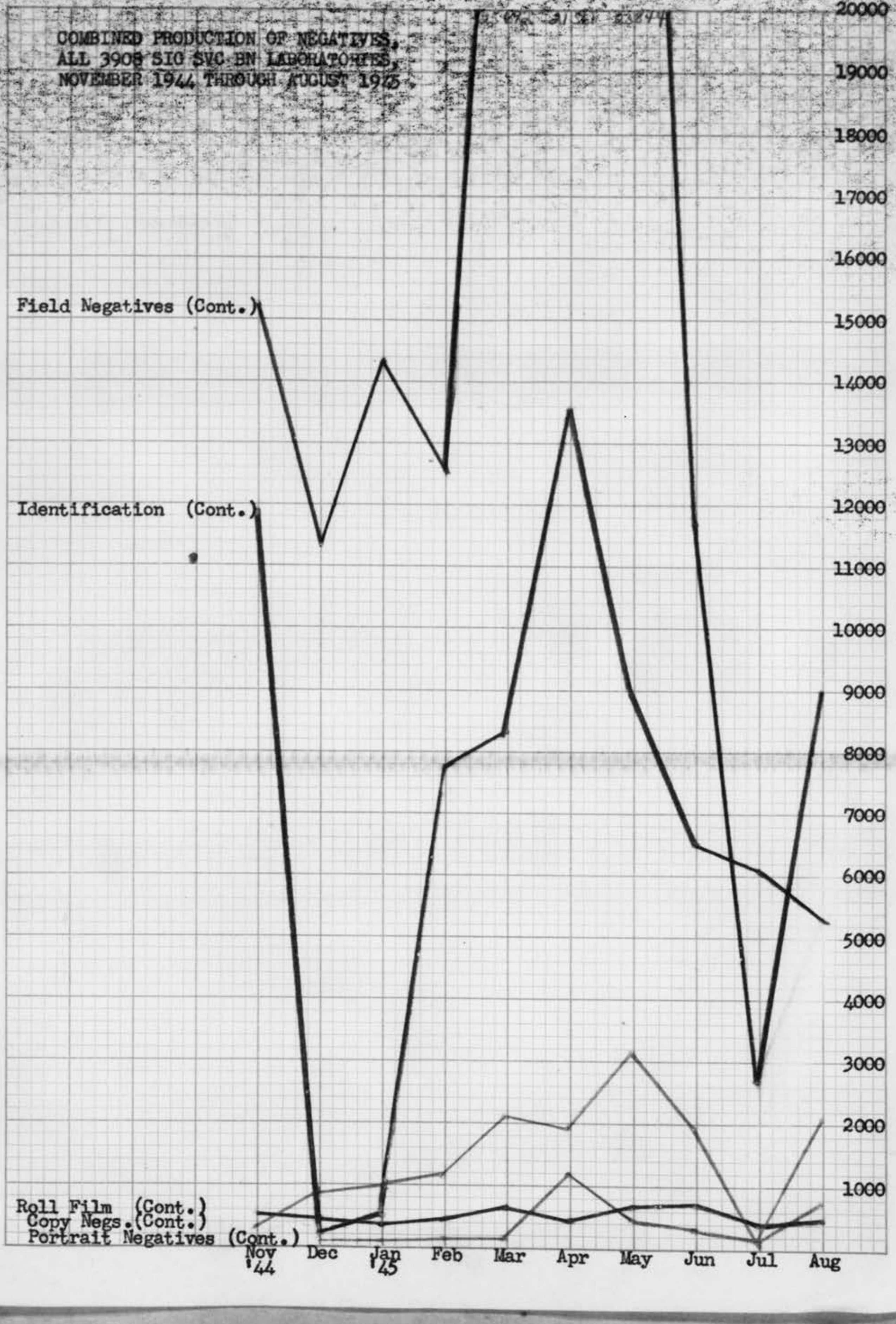
London Still Laboratory
U.K. Base Laboratory (HQ SOS)
Eastern Base Section
Western Base Section
Southern Base Section
NID-WBS Laboratory
V Corps Laboratory
A.T.C. Laboratory
HQ Depot O-617 Laboratory

Paris Still Laboratory
Paris Identification Laboratory
Paris Portrait Studios
5th Infantry Laboratory
Clyde Area Port
Chanor Base Laboratory
Delta Base Laboratory
Assembly Area Laboratory

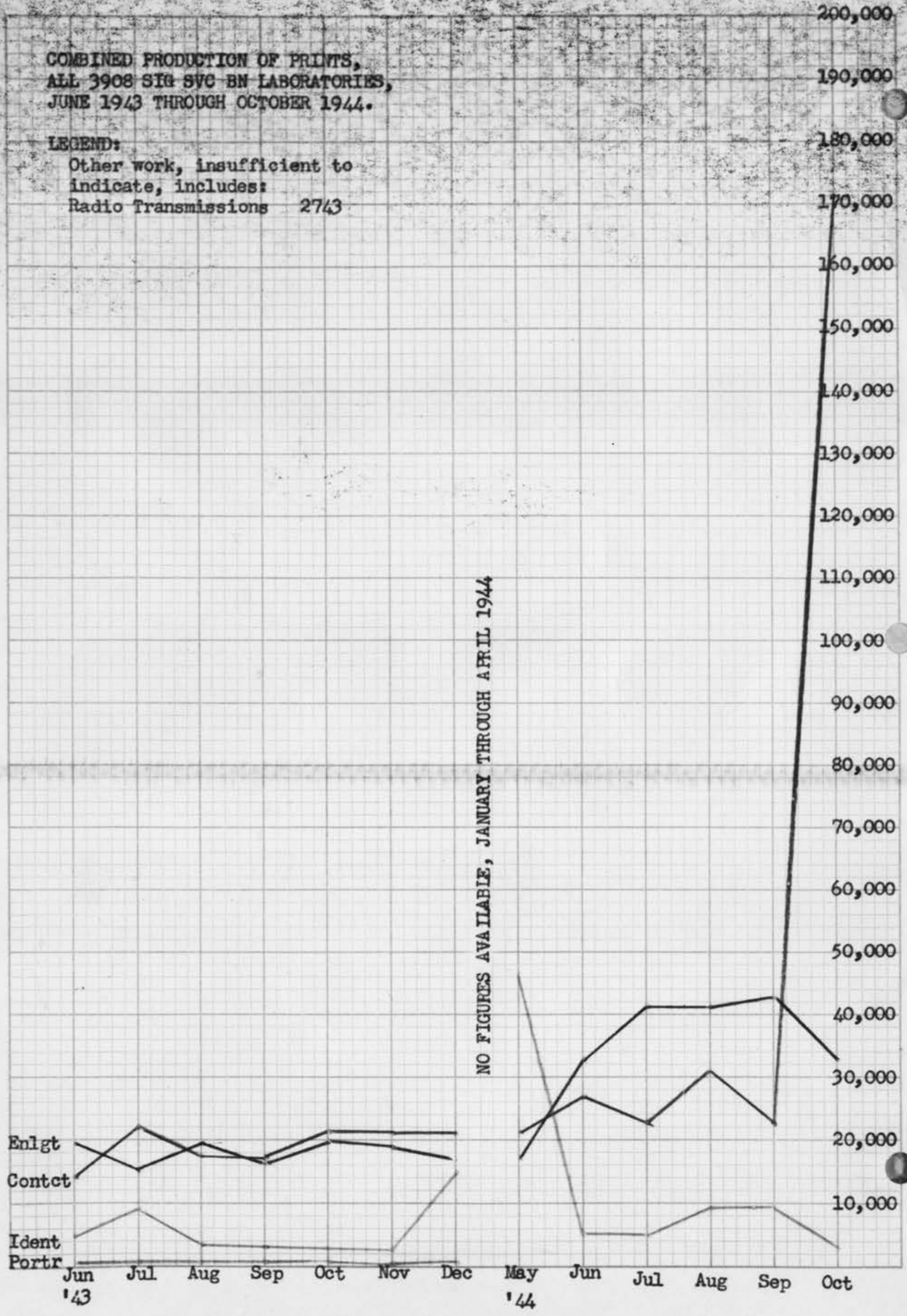
C. Statistics on Motion Picture Production in ETO

General. As in the case of still picture work, front line experience in the ETO was similar to that in other theaters, with the


COMBINED PRODUCTION OF NEGATIVES, ALL 3908 SIG SVC BN LABORATORIES, JUNE 1943 THROUGH OCTOBER 1944.

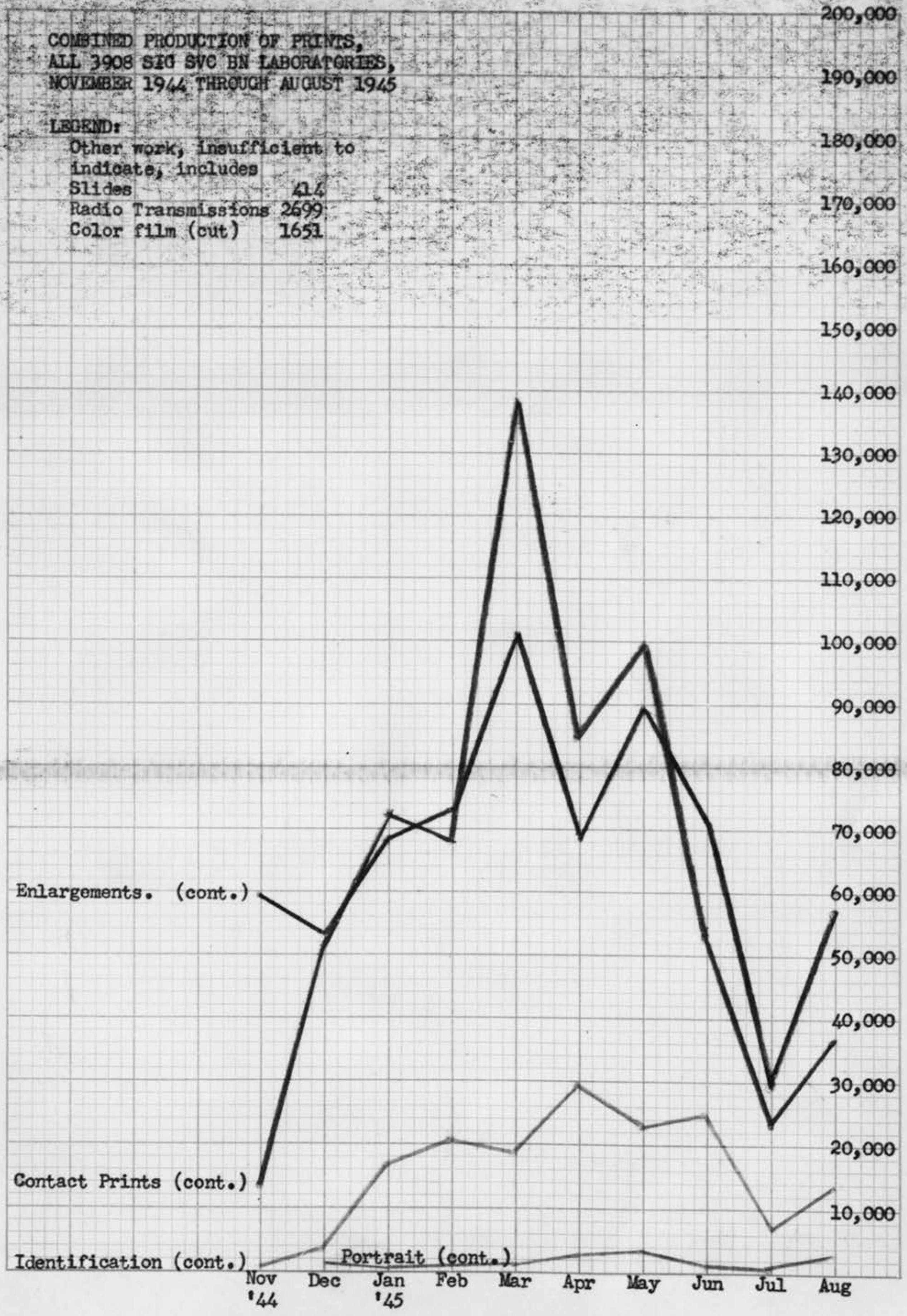


COMBINED PRODUCTION OF NEGATIVES,
ALL 3908 SIG SVC BN LABORATORIES,
NOVEMBER 1944 THROUGH AUGUST 1945.



COMBINED PRODUCTION OF PRINTS,
ALL 3908 SIG SVC BN LABORATORIES,
JUNE 1943 THROUGH OCTOBER 1944.

LEGEND:
Other work, insufficient to
indicate, includes:
Radio Transmissions 2743



COMBINED PRODUCTION OF PRINTS,
ALL 3908 SIG SVC BN LABORATORIES,
NOVEMBER 1944 THROUGH AUGUST 1945

LEGEND:

Other work, insufficient to indicate, includes

Slides	414
Radio Transmissions	2699
Color film (cut)	1651

exceptions previously noted.[27] The processing set-up was on a large-scale, and manifested an interesting use of local commercial facilities to supplement Army establishments.

Motion picture film was widely distributed. The accompanying table shows the footages sent to various organizations from January 1944 through August 1945, inclusive.[28] The graph, showing shipment of negatives to Washington, will illustrate the peaks of activity.[29]

The use of 35mm black-and-white negative exceeded that of 16mm by about 8 to 1; the use of 35mm positive exceeded that of 16mm by about 3 to 1. It was the general practice in all theaters to use 35mm cameras wherever they were available, and to use 16mm only when 35mm were not available or where unusual conditions necessitated the use of the smallest, lightest equipment, irrespective of the quality of the finished film.[30]

The total footages of motion picture film processed by the 3908 Signal Service Battalion (GHQ Pictorial) are shown in the following table, wherein the first column represents the year preceding D-Day; the second, the year including D-Day and V-E Day; and the third, the quarter from V-E Day through V-J Day. The fourth shows the total of all three periods.[31]

TYPE OF FILM	Jun 1943-May 1944	Jun 1944-May 1945	Jun 1945-Aug 1945	TOTAL Jun 43 - Aug 45
35mm positive	1,285,836	11,432,633	1,004,737	13,723,206
35mm negative	923,828	5,234,847	459,612	6,618,287
16mm positive	505,913	1,970,251	1,638,876	4,115,040
16mm negative	309,196	561,125	400	870,721

DISTRIBUTION OF MOTION PICTURE FILM, IN FOOTAGE TO ORGANIZATIONS,[28]

JANUARY 1944 THROUGH AUGUST 1945

12th Army Group	157,259
6th Army Group	4,000
15th Army Group	6,400
1st US Army	10,450
3rd US Army	2,350
9th US Army	189,185
1st Allied Air-Borne Army	1,000
Air Force	1,000
CWS	3,900
Signal Corps	600
Medical Corps	64,100
QM	70,000
Ordnance	54,750
Engineers	19,500
Tech Shows	444,440
Provost Marshall	6,000
Base Sections	36,000
Tire Conservation	111,000
Camera School	296,090
P & PW	15,233
War Crime Commission	65,946
PRO SHAEF	255,553
PRO UK Base	8,520
Gen. "Ike"*	12,875
Director, APD, ETO	199,926
OWI	398,791
Colonial Film Unit	47,600
British newsreels	58,400
Canadian Film Unit	11,000
Combined Operations	14,300
British newsreels, Theater A	168,600
MOI	113,400
French newsreels	16,950
French Army Film Unit	253,500
FFI	8,400
AAFP	250,306
Miscellaneous	313,820
TOTAL NEGATIVE TO WASHINGTON	3,691,144

* Apparently refers to Gen. Dwight D. Eisenhower

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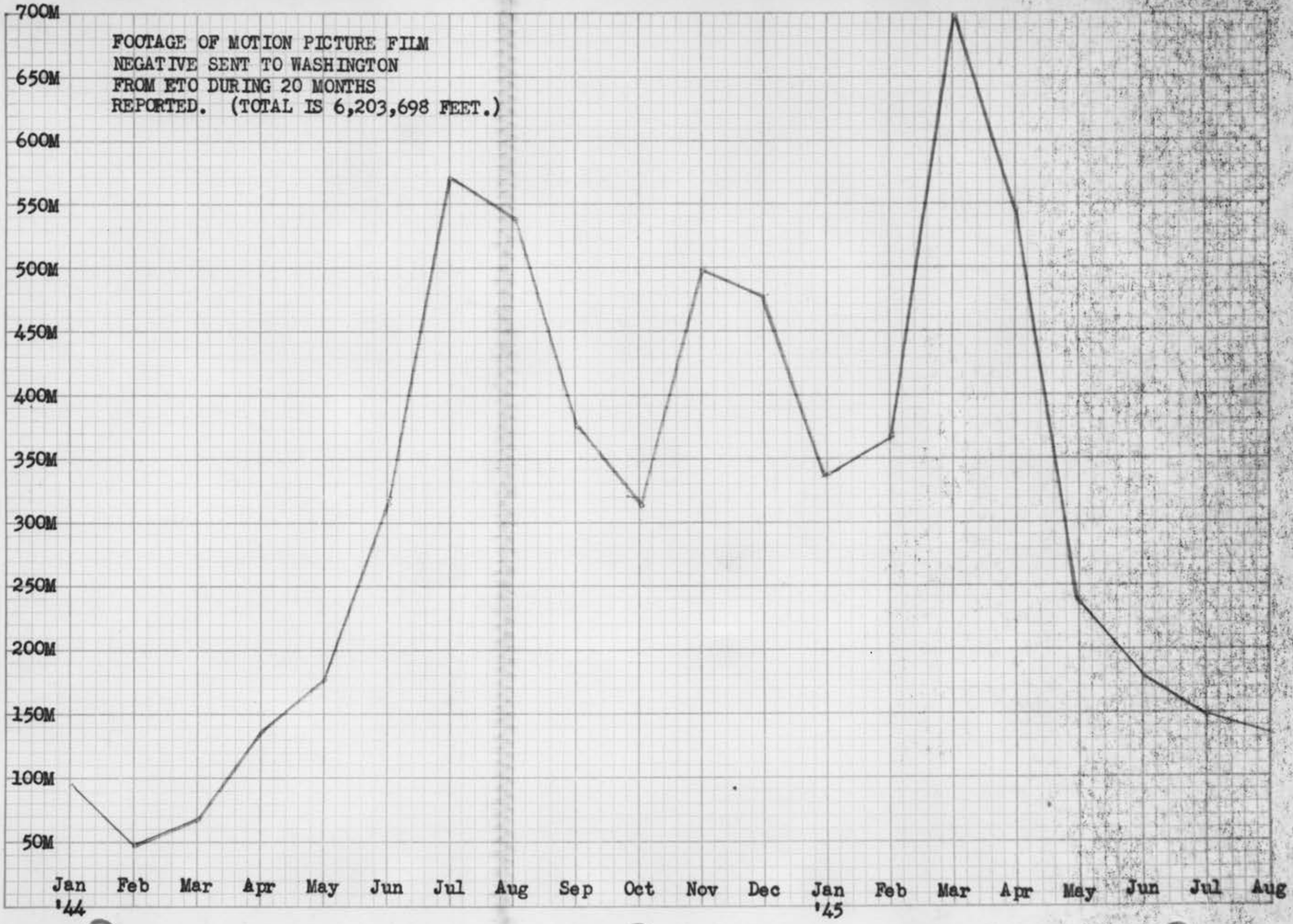
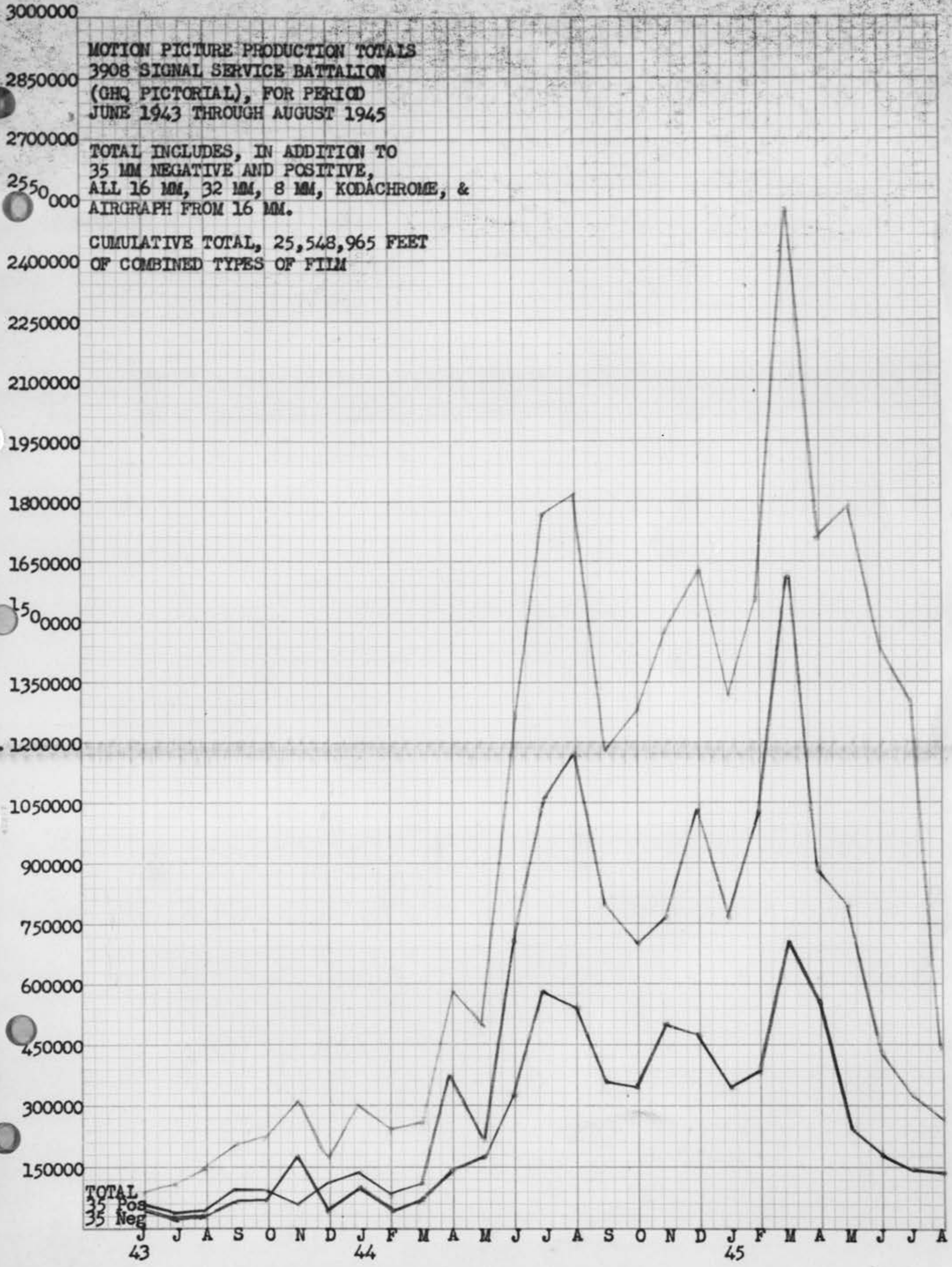

FOOTAGE OF MOTION PICTURE FILM
NEGATIVE SENT TO WASHINGTON
FROM ETO DURING 20 MONTHS
REPORTED. (TOTAL IS 6,203,698 FEET.)
700M
650M
600M
550M
500M
450M
400M
350M
300M
250M
200M
150M
100M
50M
Jan '44
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan '45
Feb
Mar
Apr
May
Jun
Jul
Aug

TYPE OF FILM	Jun 1943-May 1944	Jun 1944-May 1945	Jun 1945-Aug 1945	TOTAL Jun 43 - Aug 45
32mm (double-16mm)	0	59,952	69,744	129,696
8mm	50	250	200	500
Kodachrome	31,072	28,978	9,526	69,576
Airgraph (from 16mm)	21,669	0	0	21,669
TOTAL	3,077,564	19,288,036	3,183,095	25,458,965

A further breakdown of the above figures is possible, both by months and by types of films, but is believed unnecessary for the purposes of this monograph. Data on field negative, composites, duplicate negative and sound track statistics can be found in detail in the reference cited. It is desirable, however, to indicate the fluctuations in the flow of field negative, for this represents all combat footage, although it includes that taken by civilian correspondents in ETO as well as that exposed by the Army's combat cameramen.[32] This information appears on the accompanying graph.

Motion Picture Processing in the United Kingdom. The main mission of the Army Pictorial Service London Motion Picture Laboratory was to process "highly classified and rush jobs of motion picture film shot by our combat cameramen, and sent to London via ADLS [Air Despatch Liaison Service]." This laboratory was established in May 1944, and spent most of the first month in getting set up to handle the invasion footage, handling only 23,900 feet of film in that time. On D-Day (6 June 1944) its first real job was received: combat film from Normandy. And in June the laboratory, with a capacity of approximately 14,000 feet per 24-hour period, processed 132,590 feet. Its peak production was 411,800 feet in April, 1945.[33] In August 1945,



MOTION PICTURE PRODUCTION TOTALS
3908 SIGNAL SERVICE BATTALION
(GHQ PICTORIAL), FOR PERIOD
JUNE 1943 THROUGH AUGUST 1945

TOTAL INCLUDES, IN ADDITION TO
35 MM NEGATIVE AND POSITIVE,
ALL 16 MM, 32 MM, 8 MM, KODACHROME, &
AIRGRAPH FROM 16 MM.

CUMULATIVE TOTAL, 25,548,965 FEET
OF COMBINED TYPES OF FILM

Company A, which had operated the London Laboratory, was consolidated with the 3908 Sig Svc Bn (GHQ Pictorial) Headquarters in Paris, but the Army Pictorial Service Laboratory remained in the United Kingdom to handle film taken by the U. K. Base Detachment and by the students in the Information and Education School (Photographic), London. Until Company A moved to France, the London laboratory had been "the only official and Army operated laboratory in the European Theater of Operations;" afterward, all work except that done by the U. K. Base laboratory was handled by the installation in Paris, the CTM (Cinema-Tirage-Maurice).

A number of commercial laboratories in the United Kingdom were also used to process Army film. Chief among these were the Olympic Laboratories, which had a capacity of 15,000 to 20,000 feet per 24-hour period. These laboratories accorded high priority to APS work, and negatives sent there "in the daytime" were developed and prints returned to APS by 1600 hours the same day.[34]

Effective 29 January 1945, " the British War Office ordered Army Pictorial Service to have all its commercial work done at Olympic Laboratories," thus restricting processing in the U.K. to Olympic and APS London Laboratories, and removing it from the various other commercial laboratories which had been used. The order received as much compliance as could be given, but the necessity of producing material to meet deadlines, the higher prices charged by Olympic for certain types of work,[35] and the better quality produced by other laboratories in some classes of processing, caused occasional deviation. As the report cited was written, the Olympic Laboratories

[redacted]

were handling all commercial work for APS in the United Kingdom, except for some special processing done at Kodak, Ltd.[36]

Another of the main British commercial laboratories used by APS was the George Humphries Laboratory, which afforded a priority similar to that given American army work by Olympic. Prints of field negatives sent there at night were delivered to APS at 1300 hours the same day. Work at this laboratory was discontinued after 29 January 1945, in accordance with the British War Office order.

The Denham Laboratories, with capacity of 7000 feet per 24-hour period, gave the same speedy service as did the Humphries Laboratory. Although the order of 29 January 1945 also applied to it, work was not stopped immediately, but tapered off gradually from that date until March 1945, when it was discontinued.

Kodak Limited was the sole processing agency for Kodachrome motion picture film. It was also well equipped for developing 16mm black-&-white reversal, and making duplicate Kodachrome prints, composite reversal prints, reversal reductions from 35mm film, 8mm reversal, airgraph prints, etc., the most important part of the job being on Kodachrome. For this reason, it continued to do APS work after the deadline set by the British War Office, handling film which could not be processed by Olympic, APS Laboratory, or CTM Laboratory in Paris.

As the cost of developing Kodachrome is included in the price of the film, figures for such work are based upon "work order sheets from the Paris Laboratories billing Army Pictorial Service on Reverse Lend Lease."[37] The figures on duplicate Kodachromes do

[redacted]

not represent "any percentage of the total amount of Kodachrome exposed or developed:" sometimes many duplicates were made of a sequence, sometimes one, sometimes none.

Kay's Laboratories (Nos. 1 and 2) were among the smaller organizations serving as auxiliary laboratories "for the over-flow work that could not have been handled promptly and efficiently at our own laboratory." This work did not cease on 29 January 1945, but gradually diminished, ceasing at the end of June of that year.

Cinit Laboratories were used during a period of five months, from September 1944 to January 1945 inclusive. Although their main activity was on 16mm prints, such as for Combat Reports, etc., they also did a small amount of 35mm specialty work.

In addition, there was a group of laboratories which developed such film made by British organizations as was not processed by APS. Known as the Combined Laboratories, the group included:

British Pictorial Productions
E-Pathe Pictures Ltd.
British Movietone News
General Film Distributors
I-Pinewood Studios
Pinewood Crown Film
Messrs. Studio Laboratories
Messrs. . Gaumont British

The work done by the Combined Laboratories was limited to film given to APS by British units; a request for desired footage was supplied in the form of a lavender or one or more prints

[redacted]

from one of the laboratories in the group.

The accompanying table shows the relative production of the APS London and commercial laboratories used by Army Pictorial Service in the United Kingdom.[39]

Motion Picture Production in France. Three laboratories were used in France. These were the Army Pictorial Service Paris Motion Picture Laboratory, the GM Laboratory, and the Eclair-Tirage Laboratory.

After an inspection of all the larger motion picture laboratories in Paris, Army Pictorial Service decided that the facilities of Cinema-Tirage-Maurice, Gennevilliers, (known as CTM) was best suited to army requirements for office space, cutting rooms, and the processing of estimated footage of 35mm and 16mm film.[40] Operations began there on 3 January 1945, when tests were made to determine exposure and processing times for all Army film emulsions, using the laboratory's equipment.

All motion picture films taken in the Paris area were processed there at first, in addition to some 16mm reduction printing. The reduction machines in France were designed to process 32mm film, so the following procedure was used to make 16mm prints from 35mm positives. First the 35mm positive was optically reduced, utilizing a 32 mm negative. The 32mm negative was then contact printed, on another machine, to make a 32mm positive. When developed, this was split down the center to make two 16mm positives. It was also possible to make a 32mm print by direct reduction from 35mm negative, by altering the printer speed, and changing the

[redacted]

MOTION PICTURE FOOTAGE PROCESSED IN ENGLAND

[redacted]

LABORATORY	PERIOD REPORTED	35 MM NEG	35 MM POS	16 MM NEG	16 MM POS	OTHER
APS London MP	May 44 - Aug 45	873,266	2,614,325	0	0	0
Olympic	Jun 43 - Aug 45	2,809,645	5,336,678	591,694	826,383	0
George Humphries	Oct 43 - Jan 45	950,076	2,309,767	219,400	80,189	0
Denham	Jul 43 - Mar 45	1,069,832	4,039,323	92,436	92,436	0
Kodak, Ltd.	Jun 43 - Aug 45		2,363	32,627	143,875	69,576* Kodachrome
						500 8 mm
						21,669 Airgraph
Kay's	Jun 43 - Jun 45	484,395	1,745,465	0	130	0
Cinit	Sep 44 - Jan 45	36,170	3,250	0	376,608	0
Combined	Nov 43 - Jun 45	242,527	68,766	0	0	0
TOTAL	Jun 43 - Aug 45	6,465,911	16,119,937	936,157	1,519,621	91,745

[redacted]

TOTAL FOOTAGE OF ALL TYPES PROCESSED IN APS LONDON MOTION PICTURE LAB:	3,487,591
TOTAL FOOTAGE OF ALL TYPES PROCESSED IN COMMERCIAL LABS IN U.K.:	21,645,780
TOTAL FOOTAGE OF ALL TYPES PROCESSED IN UNITED KINGDOM:	25,133,371

*Kodachrome, incl. dup, composite dup, and B&W from Kodachrome, but not processing of original.

[redacted]

35mm negative received from the field.

As the war drew to its close, an increase in the demand for 16mm training film necessitated the use of the GM Laboratory, in Paris, on a service contract. This laboratory was also equipped to produce 32mm positives from 35mm negatives. Operations there commenced on 19 April[41] and reached a peak during the first week of July, when 56,000 feet of 16mm Movietone were processed; average production was 33,000 feet per week. The last training film from the GM Laboratory was completed and delivered on 13 July.

A further increase in the number of training films required additional expansion of laboratory facilities; consequently a contract was negotiated with the Eclair-Tirage laboratory in Epinay. Processing here began on 1 June, with a peak of 97,000 feet of 16mm Movietone being reached during the week of 25 June. An average of 53,000 feet of training film was processed weekly until 25 July, when the last training film from this laboratory was delivered.[42]

Film production in the French laboratories used by the 3908 Signal Service Battalion (GHQ Pictorial) is indicated in the accompanying table.

Other work, not reflected in production figures, includes that of script writers, editors, cutters and other technicians. Also, as much of the film was exposed with silent motion picture cameras, it was necessary to maintain rather extensive sound libraries. That in Paris contained 96,000 feet of film; that in London was "even more extensive."[43] Among the subjects cataloged in the Paris

[redacted]

MOTION PICTURE FOOTAGE PROCESSED IN FRANCE

LABORATORY	PERIOD REPORTED	35 MM NEG	35 MM POS	16 MM NEG	16 MM POS	32 MM
C-T-M Lab	Jan 45 - Aug 45	376,757	675,398	2,346,419	2,346,919	110,915
G-M Lab	Jan 45 - Jul 45	18,703	0	0	342,680	7,421
Eclair-Tirage	July 1945 only	0	0	0	182,192	11,320
TOTAL	Jan 45 - Aug 45	395,460	675,398	2,346,419	2,871,791	129,656

TOTAL FOOTAGE OF ALL TYPES PROCESSED IN FRANCE: 6,418,724

~~RESTRICTED~~

[redacted]

Laboratory were:

SUBJECT	FOOTAGE	SUBJECT	FOOTAGE
Planes	6100	Explosions	600
Vehicles	2300	Flak	100
Bulldozers	100	Mortars	200
Tanks	6700	Rockets	1600
Water, motor boats	5600	Ground battle	4900
Machine guns	1400	Machinery	1000
Rifles	400	Water	1000
Carbines	300	Ships	100
Small arms fire	1800	Men at work	200
Artillery	3000	Animals	200
Horses	200	TOTAL	37,800

In addition, there were 47 musical selections, comprising bands, symphonies, marches, dances, and "mood music," each of about 500 feet, and 8900 feet of title music, for a total of 32,400 feet.

REFERENCES FOR CHAPTER VI

1. Positive Intelligence Unit Report No. 515, dd 21 February 1945.
2. The following portion of Section A, Chapter VI, is based upon material obtained in interview with Lt. Colonel G. E. Popkess, Jr., Capt. E. R. Buchanan, and Captain L. Pace, all of whom were APS officers in ETO, 18 March 1946, unless otherwise noted.
3. All information in this section is from "Still Picture Operation," 3908 Signal Service Battalion (Photo GHQ), n.d., unless otherwise noted.

[redacted]

4. Interviews with Capt. W. R. Jennings, APS, 21 Feb. 1946, and Lt. Col. G. E. Popkess, Jr., APS, 18 March 1946.

5. In the example cited as typical, the 90th Infantry Division, while in combat, was covered by detachments from 163rd Sig Photo Co (1 O, 5 EM), 165th Sig Photo Co (2 NCO, 7EM), 166th Sig Photo Co (1 O, 1 NCO, 12 EM), and 167th Sig Photo Co (2 EM). During 39 weeks (6 Oct 44 to 13 July 45) they took approximately 460 combat stills of this division. Op. cit., p. 2 .

6. Op. cit., p. 3. Processing was handled at various laboratories, as described subsequently.

7. Processing facilities and their production are discussed later in this section.

8. As of 6 April 1945.

9. Army Pictorial Service is referred to as Army Pictorial Division throughout the report.

10. Erroneously listed as 4" x 5" prints in op. cit., p. 11.

11. Figures are "far from complete" and below actual total. "This is due from missing records and no attempt was made to boost the calculated or actual figures to cover these errors." Op. cit., p. 6.

12. For distribution.

13. The U. K. Base Laboratory took care of all Base Section work and other miscellaneous coverage and distribution in the U. K., "leaving the London Still Laboratory nothing but their top priority combat work." Op. cit., p. 18.

14. No figures available prior to July 1945. Op. cit. p. 26.

15. Op. cit., pp. 28-33.

16. Op. cit., pp. 34-37.

17. Op. cit., p. 39.

18. Op. cit., p. 44; according to statement on p. 43, however, the move was made in February 1945, but this is stated by Lt. Col. G. E. Popkess, Jr., APS, to refer to certain motion picture activities.

19. Op. cit., p. 46.

[redacted]

20. Op. cit., pp. 44-45.

21. Op. cit., p. 56 et. seq.

22. Address not given in op. cit.

23. Date of establishment not given in work cited.

24. Op. cit., pp. 66-67.

25. Op. cit., pp. 70 through 101.

26. London Still Laboratory was principal producer from June 1943 through October 1944; Paris Still Laboratory was principal producer from November 1944 through August 1945, all dates inclusive.

27. Interviews with Capt. Wm. R. Jennings, APS, 21 Feb. 1946, and Lt. Col. G. E. Popkess, Jr., APS, 18 March 1946.

28. "Motion Picture Operation", 3908 Sig. Svc. Bn., nd., p. 5, attributes figures to files of London film library, letters of transmittal to users, and censorship sheets from SHAEF Theater A, London, on OWI and British and French newsreels. It states that approximately 5000 (or 1/3) of the library cards were illegible, and so were not included in the figures, suggesting that figures might be "safely" increased 30%. Probably because of the difficulty of keeping accurate records during war action, there is some discrepancy in the figures on footages produced and footages processed.

29. Op. cit. shows figures for January 1944 through August 1945 only.

30. Historian's opinion, based upon reading of all reports, etc., cited in this monograph, and confirmed in interview with Capt. W. R. Jennings, Army Pictorial Service, OCSigO, 16 March 1946.

31. Op. cit., pp. 27 - 30.

32. Op. cit., p. 31.

33. Op. cit., p. 39, gives the daily capacity as 500,000 feet, but this refers to total capacity of all laboratories in London used by the Sig. C. (interview with Lt. Col. G. E. Popkess, Jr., APS, 19 March 1946).

34. Op. cit., p. 43.

35. All work at British commercial laboratories was paid for under reverse Lend-Lease.

[redacted]

36. No date, but apparently prepared in September 1945, as no figures appear beyond August 1945.

37. Op. cit., p. 63.

38. Op. cit., p. 71.

39. A breakdown of these figures appears in op. cit., pp. 40-94.

40. Op. cit., p. 102.

41. Op. cit., p. 95. Year not stated, but apparently 1945 in all cases.

42. Op. cit., p. 99. Year not stated, but apparently 1945 in all cases, although there seems to be some confusion as to months, for while operations began in June, only figures for July are cited.

43. Op. cit., p. 5.

[redacted]

CHAPTER VII

RECEPTION AND USE OF COMBAT PHOTOGRAPHY IN USA

A. General

Preceding chapters dealt with the training and organization of combat photographic teams, the equipment with which they were provided, and their operations in the field. This chapter will tell how film was handled upon its receipt in the United States, how the still and motion pictures were used, and their values to the war effort.

Once the exposed or developed combat motion picture film had left the hands of the overseas combat photographers, their mission was fulfilled -- but that of the film had not yet commenced. Before the film could be put in to use, several operations were required.

If not processed before shipment from the theater of operations, the film was developed upon receipt. Prints had to be made and, in some cases, returned to the theater. In the case of a motion picture, the film required editing. Classification had to be determined, to assure that nothing of military value was released for publication or showing. The film had to be brought to the attention of all interested arms and services. Final disposition of the prints and negatives completed the cycle.

At the outset of World War II, it had been anticipated

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that the processing of still and motion pictures done in this country would be accomplished at the Signal Corps Photographic Laboratory. This had been completed at the Army War College, Washington, D. C., in 1920, when motion picture activities were transferred from their previous location, a building at 6th and F Streets, N.W., Washington. Still picture processing was done at the latter address until 1925, when this activity, too, moved to the Army War College.

But, within a short time after the war began the volume of work proved too great for the Washington installation, and early in 1943, the Signal Corps Photographic Center in Astoria, L.I., N.Y. became the focus for all Signal Corps photographic processing in the United States. This change-over resulted in some delay. When the processing was done in Washington, prints could be shown to the Army Photonews Board (then the reviewing agency) within three or four days; after the shift to Astoria, all the film was reviewed, but there was a time lag of one to two weeks.

Most processing of motion pictures was done at the DeLuxe Laboratories, New York, N.Y., the complete facilities of which had been engaged by the U.S. Government. A Signal Corps officer was stationed at the laboratories for supervision and security purposes. Kodachrome still, representing about one per cent or less of the total, and 16mm motion picture films were processed at the Eastman Laboratories in Rochester, New York, for

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the Kodachrome process is a complex one, requiring certain special equipment, not available in overseas laboratories. (See Appendix E).

Little emphasis was placed upon color motion pictures throughout the war, for 16mm was all that was used for this work, and it was necessary to make 35mm prints from it for projection -- a comparatively expensive process. Combat photographers were instructed to use 35mm black and white in preference to 16mm color, not only for this reason, but also because larger quantities were available and processing was much quicker.

Photographs and film were sent from theaters to the United States by various means. For routine material, this occasionally meant by boat; for material of immediate interest to the War Department or the general public, airplane transportation was frequently used; facsimile, to a lesser extent, was used for the transmission of still pictures, particularly those of "spot news" value.

Needs of the arms and services for motion pictures were determined by reviewing agencies which at the same time classified the film. The first such agency was the War Department Photonews Board, established 10 January 1942.[1] Operating as a unit of the Bureau of Public Relations, this Board reviewed all combat motion pictures, primarily to determine their suitability for release to the public through newsreel and similar channels; secondarily to determine which military organizations

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might be interested. Representatives of the arms and services were then invited to witness screening of the footage. This procedure necessitated a showing for each representative because of the primitive system then in force - the viewer signalled the projectionist, who inserted a slip of paper in the reel at the designated point.

The Board was further directed to confer with representatives of the Chiefs of Arms and Services, except Army Air Corps, for advice in matters in their realm, prior to decisions by the Director of the Bureau of Public Relations.

In the latter part of 1942, it was proposed that the Photonews Board be transferred from Washington to New York in order to save time and transportation.[2] Film from the European Theater of Operations was being sent to New York where it was forwarded to Washington for processing by the Signal Corps Photographic Laboratory in theory, but actually most of the processing was being done commercially at the DeLuxe Laboratories in New York. After processing, film was forwarded to the Signal Corps Projection Room in the Munitions Building for review by the Photonews Board. Finally, it was returned for distribution to the newsreel companies and for incorporation in Signal Corps motion picture productions made for the various arms and services. All negatives and prints of combat films and the finished pictures are deposited in the Central War Department Film Library maintained at the Signal Corps Photographic Center.

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Therefore, a recommendation was made by the Office of the Chief Signal Officer that, in order to save "two or three days time in the release of approved film", to minimize the transportation and handling of "potentially secret" film, and to centralize receiving, processing, censorship, newsreel release, and review for military utilization, the Photonews Board be moved to New York, as close physically, to the Signal Corps Photographic Center, as possible.

This recommendation was not then put into effect, evidently because it was felt that the film should be available to the higher echelons in Washington as soon as possible after its receipt. Other reasons were that the congestion at the Signal Corps Photographic Laboratory had been largely relieved by the transfer of much of the processing function for motion pictures to DeLuxe, and by improved facilities for review afforded by the inclusion of auditoriums in The Pentagon, then under construction.

The Photonews Board continued to function as such until March 1943, although it grew of less and less importance. A March directive set up the War Department Motion Picture Board of Review at the same time that the Army Pictorial Board was instituted. The latter had the responsibility of integrating all Army photographic policy; the Review Board was principally concerned with getting combat footage to the fighting forces in the quickest and most useful way - - training films, etc., and to the public.

On 5 March 1943, also at the same time that the two

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agencies above came into being, there was sent a directive which may be summarized as follows:

1. Present receipts of motion picture film from active theaters are about 100,000 feet per month, and are expected to increase to more than 250,000 feet per month within 90 days.

2. It is believed that, aside from possible use in training films, much of this footage may be of use to the three major commands as a means to note from actual performance of units in combat, the adjustments necessary in training to enable troops to avoid any errors shown and to learn from experience of personnel participating in combat.

3. Mechanical arrangements installed by the Chief Signal Officer will permit observers of screenings to select footage required.[3]

4. All combat films will be reviewed by at least one representative of each of the three major commands. In addition to making initial selections, each officer assigned will arrange any necessary projections for interested subordinate agencies of the represented command. AGF and AAF will advise the Chief Signal Officer of their desires for the editing and release of any[4] selected films, which will then be supplied by the Signal Corps.

This procedure was revised on 8 July 1943 by a memorandum to the members of the board.[5] After several instances in which some member of the Board of Review desired a higher classification of some footage than it merited in the opinion of other members, a request was made that Military Intelligence Division appoint an officer to act as arbitrator for the board. Accordingly, on 18 September 1943, an officer was appointed:

a. To classify in the name of the Review Board all film with respect to general, non-technical, non-service or branch matters which do not rightly fall within the field of the Services represented on the Review Board.

Figure 22

Members of the War Department Motion Picture Review Board, at the controls of the Multiple Film Selector in the Pentagon, indicated, during screenings, the footage of interest to the organizations which they represented.

NO SMOKING PLEASE
SIGNAL CORPS U.S. ARMY
176230

SC 176230
Selectors of the various branches viewing films
Standing right to left; Lt. Lawrenson, Capt.
Scott and Capt. Lensim, at the selection panel
in the Projection Room of the Pentagon Building,
Washington, D. C., 1943.

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b. To arbitrate all cases of disagreement as to the relative security desirable for an individual sequence.[6]

The revised procedure remained in effect until 21 August 1944.[7] At that time, the procedure which had been suggested and rejected in October 1942, (i.e, the transfer of the board to New York City) was adopted.[8] The board thus constituted consisted of representatives of ASF and AGF. It continued to function until hostilities had ended.[9] Security classification was the responsibility of BPR.

B. Distribution of Combat Stills and Motion Pictures.

Distribution of combat still pictures was far simpler than that of motion pictures, for the negative and one print were filed at the Still Pictures Library, the Pentagon, a second was sent to the interested arm or service for information and any necessary action, and a third was considered by the Bureau of Public Relations for possible release. This procedure was followed throughout the war, although the routing was changed in order to expedite circulation. At first, pictures had been received by the Bureau of Public Relations, later, they were sent directly to the Still Picture Library, Army Pictorial Service.

Motion pictures were screened and sequences of interest to the staff, arms and services and the public determined, as described above. Within the Service, a further breakdown was made. For example, the Signal Corps representative might select a sequence showing some American troops using a German radio direction finder of a type which had been captured in considerable quantity. Several Services in the Office of the Chief Signal Officer would find this of interest: Personnel and Training Service, perhaps, for the preparation of literature or film strips instructing allied troops in the operation of the equipment; Engineering and Technical Service, for the purpose of developing counter-measures to neutralize the equipment, and for the possible incorporation of some of its better features in American equipment of the same class; Signal Intelligence Branch to forward to the organizations concerned with planning strategic bombing and economic warfare, etc.

Similar lower-echelon distribution was made by other arms and services, each within its own organization.

C. Uses of Combat Photography.

The principal uses made of combat footage were:[10]

a. Secret Staff Film Reports: Highly classified material of interest to the General Staff. Caption sheets were distributed to all the Arms and Services, including Army Air Forces, Navy, and Marine Corps.

b. Combat Bulletins: Distributed for exhibition in all Army installations in the United States and overseas.[11]

c. Theater Chronologies: Historical footage filed at the Signal Corps Photographic Center for historical use, and as a library for Bureau of Public Relations, etc.[12]

d. Tactical Use: Cameramen in Casablanca made air and ground pictures of a smoke screen; its efficacy demonstrated by the pictures, it was promptly used against the enemy. Such immediate use of combat photography was the main reason for the inclusion in the field army of the Signal

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Photographic Company as an organic unit. The role of the camera in tactical operations will be discussed later in the chapter.[13]

e. Supply Problems: Illustration of inferior methods of packaging, handling material in transit, etc.

f. Engineering: Illustration of defects in performance of equipment, indication of requirements for overcoming them.

g. Industrial Service Films: Twice monthly for the Bureau of Public Relations a film was sent to the factories of the country. One was always general, the "Film Communique", the other aimed at a specific industry, such as "Timber to Tokyo" "War on Wheels".

h. Army-Navy Screen Magazine: Two reel releases of news and feature material aimed at the armed forces specifically.

i. Legal Purposes: Pictures of bombing of Red Cross Installations, the entire photographic record of the deeds of the Nazis in the concentration camps, to be used as evidence in the prosecution of War Criminals.

j. Public Relations: Release of combat stills to newspapers and magazines; combat motion picture to newsreels, short subjects, and for use in feature pictures.

k. G I Movie Weekly: Collations of assorted features from commercial films for Army personnel. Weekly, 45 minutes.

l. Special Productions: Examples are a film on Japanese weapons for the Command and General Staff School, films requested by Theater headquarters to illustrate aspects of their operations, etc.

m. Training Films: To show soldiers what to do in combat conditions, how disregard of training may mean disaster, how to use captured enemy material, etc.

Combat pictures of existing mortars, for example, revealed deficiencies in these weapons, and gave Ordnance a virtual

[redacted]

Figure 23

Corresponding footage was chosen after examination of paper tape produced by Multiple Film Selector, in the Inspection Room of the Pentagon.

176231

SC 176231
Pvt. Donald Jacques reading the "Multiple Film Selector", at the Pentagon Building, Washington, D. C., 1943.

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blueprint of changes needed. Pictures of street fighting caused extensive revision of previous instruction on fighting in towns. Flame throwers in action were studied on the screen, and methods were worked out from film showing the routing of Japs from caves. Film made by combat teams in a leper colony, and of such diseases as schistosomiasis, scrub typhus, and others likely to be encountered by soldiers provided preventive training of troops. Other pictures, showing wounds and their treatment, were of use to the Medical Corps in devising improved equipment and methods.[14]

Many special uses were found for combat film, "Action at Angaur" made primarily for the morale of the 81st division which fought there, was so excellent that the Treasury Department requested 1000 prints for use in the Seventh War Bond Drive. "Twenty-seven Soldiers", taken on the field in Italy, illustrated how fighters for freedom in one Army, worked together. "Appointment in Tokyo" showing General McArthur's return to the Philippines, the Japanese surrender on the Missouri, and the entry into Tokyo, was made entirely from combat footage.

"Brief for Invasion" told of the work required to defeat Germany. "The War Speeds Up" pointed out the relations between rapid progress in the field and increased production accomplishment at home. "The Enemy Strikes" gave an account of the Battle of the Bulge. These films were shown to the general public in 14,000 theaters as well as to war workers.[15]

Combat footage was often returned to theaters of operation, an automatic procedure for this being established on 20 June

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1944. This did not cover the shipment of duplicates nor of information on Kodachrome. Critiques of kodachrome exposure were sent to the theaters, but usually not until two months afterward. Correlation was therefore necessary but difficult.

Altogether there was at the end of the war about 16,000,000 feet of combat footage in the Central War Department Film Library. This included Air Corps, Navy, Marine, British, Coast Guard and commercial footage as well as Signal Corps. Caption sheets of Signal Corps film were supplied to about twenty government agencies besides the Navy. The Library has furnished film to the War Crimes Commission, the Office of Strategic Services, and commercial films including the large motion picture studios.

D. Appraisal of Combat Photography.

The original role of photography in combat was conceived by the Army to be support for tactical units. On-the-field request by unit commanders and processing by field photographic units were to furnish immediately useful pictures of terrain, weapons, and general intelligence information. In accordance with this idea, each field Army was provided in the War Plans with a Signal Photographic Company as part of its organic complement. These companies contained assignment units for distribution as low as division. In addition, the experience of the first World War had shown the value of battle pictures, both still and motion, for news and training, as well as morale. Therefore in 1936, plans were set up

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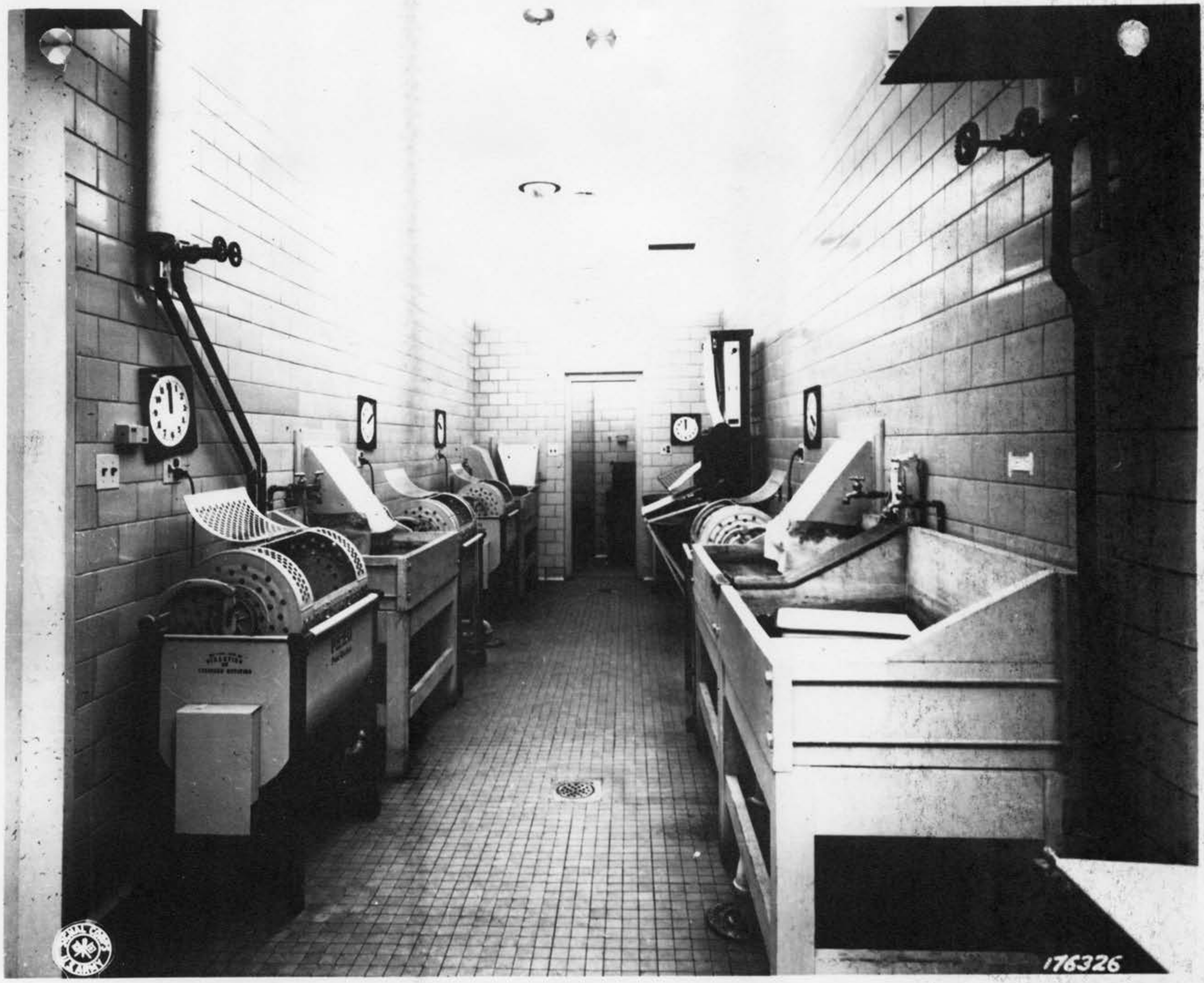
Figure 24

Print washing room, part of the photographic laboratory operated by APS at the Pentagon.


176326
SIGNAL CORPS U.S. ARMY

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176326
Print washing room, sub-laboratory, Pentagon
Building, 1943. Washington, D. C.

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for a headquarters photographic laboratory with these functions as its mission.

At the outbreak of the war there were two Signal Photographic Companies, neither full strength. As the war progressed not every field Army was assigned a photographic company. Those companies in existence had detachments scattered literally all over the world. There were not enough photographic technicians; therefore there were not enough photographic units. But as the need for close combat photographic support grew with the number of campaigns, the need of theater commanders for base photography grew also. Therefore throughout the war we have examples of combat photographic men being detailed to theater photographic activity. All overseas photography is not necessarily combat photography; that distinction has been made before. It needs here to be made again.

Many still and motion pictures taken overseas served many purposes, but broadly speaking the pictures made in this war have borne the emphasis of news considerations. Army Ground Force Headquarters aver that there was never enough actual photography of combat operation and equipment, technique and enemy activities.[17]

Besides the shortage of photographic technicians, there was the additional factor of almost complete ignorance among commanders of just what photography could do in support of even small units. West Point, the Command and General Staff School, and the Officers Candidates School without exception neglect photography and the uses of photography in military action.[18]

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More technically trained photographers and processing personnel are needed; wider knowledge of the role of photography must be spread throughout the service; the distribution of existing photographic personnel must be made in the future with tactical considerations in the forefront. If there had been enough photographers in this war, there would still have been such productions as "The True Glory" and "San Pietro" but there would have been at the same time plenty of low-level photographs of immediately surrounding terrain for those units requiring that kind of intelligence.

Signal Corps training was dominated by newsreel trained men: they were the instructors. Continuity was stressed and the spectacular. The students learned these lessons well, once they got in stride. But the photography for combat use is not necessarily spectacular - it may be painstakingly photographing every angle of a piece of enemy equipment. Veteran photographers with combat experience were returned to the Signal Corps Photographic School to teach, and photographically the results of the last year of the war show their influence. Theater photographic officers need to have a comprehensive understanding of the various uses of overseas photography.

During the six months ending 31 December 1943, the Signal Corps received 724,907 feet of motion picture film from overseas. Of this footage, 600,213 feet were Signal Corps-made, 95,527 came

[redacted]

from the commercial newsreel cameramen, and 29,167 from other sources, presumably the Naval Services, and the Air Forces. The geographic sources of the film were European Theater: 473,881; Pacific Theater: 236,379; American Theater: 14,647 feet. Of the total quantity of film received, 126,565 were selected for use by the various services after the screening of 138,331 feet. Also see Appendix L.

The calendar year 1944 showed a great increase in footage, the total being 5,534,110 feet. The Signal Corps took by far the major portion of this total, some 2,646,549 feet in the European Theater but also made 742,414 feet in the Pacific-Asiatic Theater, and 23,571 in the American Theater. Newsreel photographers accounted for an additional 348,823 feet.

1942 receipts of still pictures from overseas were 6,053. 1943's were 81,690; 1944's were 69,465. The first eight months of 1945 saw 117,787 still pictures arrive. The total for the war was 274,995 from overseas.

REFERENCES FOR CHAPTER VII

1. Memo fr Asst. Sec'y, General Staff to TAG, 10 Jan. 1942.
2. Ltr fr OCSigO to S/W, 21 Oct. 1942.
3. For description of this equipment, see Appendix G.
4. Memo fr AC/S G-3 to CG, SOS, AGF, AAF, 5 March 1943.
5. See Appendix F.

[redacted]

6. Memo fr Col. R. C. Jacobs, Jr., Executive Officer, G-2 to Dir. Intel., ASF, 18 Sept. 1943.

7. Ltr fr TAG to CG, ASF, 20 Aug. 1944.

8. Ltr fr TAG to Dir. MPRB, 21 Aug. 1944.

9. Ltr fr TAG to CG, ASF, CG, AGF, 20 Aug. 1945.

10. Interview with Brig. Gen. Munson, 25 Sept. 1945.

11. Undesirable footage was removed by the Medical Corps before prints were made for showing in hospitals.

12. More than 60 campaigns are covered in these films, of which 1,399,748 feet had been received by 1 Dec. 1944. The campaigns include 28 in ETO, 12 in SWP and 9 in MTO.

13. Four photographers were stationed in London to take photographs of the robot bombs in order that their trajectories could be learned, thus indicating their launching sites and making countermeasures possible. (One of these photographers, using a camera with a 90-inch lens, remained on a roof top for 72 hours.)

14. Interview with Brig. Gen. E. L. Munson, Jr., 25 Sept. 1945.

15. The material on this page comes from an article in "Business Screen", the entire December 1945 issue of which is devoted to and written by the Army Pictorial Service.

16. Memo fr Asst. Chief, APS to Chief of Branches, APS, SCPC and CO, SCPL, 20 June 1944. See Appendix H.

17. Interview with Signal Officer, Army Ground Forces, and Chief, Training Literature and Visual Aids Section, Headquarters, Army Ground Forces, 29 Sept. 1945.

18. Outside of the Army Air Forces, not even the Signal Corps includes photography in its officer candidate classes. Officers may be trained specifically for photography, but the average officer not so trained has no instruction in the subject.

CHAPTER VIII

IF WAR SHOULD COME AGAIN

It is, of course, the hope of the world that war has been terminated for all time. But hope is sometimes unfulfilled, and for that reason thought must be given to the procedure which should be followed in the event of another outbreak of fighting.

Such procedure can be no more than outlined, for new weapons used at the close of this war, and still more potent ones which science will devise, may well revolutionize both strategy and tactics. There may be no more fronts, where men engage a visible enemy; all war may be carried on by robot or remote-control equipment. This cannot now be foretold with certainty. One thing is sure, however: history shows that, thus far, all wars have been won by men occupying enemy territory. And it is on that basis that we must proceed, though we may modify our plans by taking cognizance of new techniques and materiel as these make their appearance.

First, a continuing study should be made to keep Army Pictorial Service (or any peace time organization which assumes its functions) fully aware of the photographic needs of the combat troops, the staff, the technical services, the training, morale and public relations organizations. An additional study should continue on the technical aspects of photography, to keep the Army not abreast, but in advance, of commercial development.

World War II has taught us that military needs are more exacting than can be met by civilian equipment; apparatus must be engineered to satisfy military requirements. In accomplishing this, effort should be devoted not only to the obvious, such as the improvement of cameras and processing equipment in regard to ruggedness, moisture-and-fungi-proofing, light weight and ease of operation; thought must also be given to the "Buck Rogers" type of apparatus.

Among the latter are, perhaps, infrared photography for reconnaisance in complete blackouts; this may require the development of new emulsions, supersensitive to the required frequencies of the spectrum. The former will also be useful in piercing fog and ground haze. High speed and high definition facsimile, though not now a responsibility of Army Pictorial Service, might well prove of great value if brought to a high degree of perfection; these would permit the virtually instantaneous transmission of images transmitted from a robot plane equipped with some form of image-scanning transmitter, and a means of producing the image to be scanned. For that matter, images from a television plane can now be photographed at the receiver, but available channels and the present state of the television art do not provide the detail necessary for accurate interpretation of aerial photographs now transmitted by this means.

Color film, long used commercially, was just becoming popular at the outbreak of World War II. It was used only to a limited extent by the United States in this war, for it had certain disadvantages, such as flow sensitivity, requirement of accurate exposure, and relatively complex processing requirements which made processing an impossibility except in certain specially equipped laboratories. A color film of fairly high sensitivity, with wide exposure latitude, and capable of being processed with little if any more difficulty than black-and-white film might prove of great value if it were also engineered to be capable of providing duplicate prints and enlargements as readily as monochrome film.

Field processing equipment, too, might be brought to a greater degree of perfection. It should become possible to replace the present hand-operated darkroom equipment with automatic apparatus which will be simple, rugged, and compact. This should not only expedite the production of prints -- whether still or motion picture -- but require fewer men for its operation.

In training combat photographers, the specific needs of the higher echelons, armed forces and technical services should be borne in mind. Perhaps more specialized training should be sought, but the emphasis must be placed upon initiative, versatility, and an intensive knowledge of how the pictures will be used. Individual photographers should get credit for their pictures, as well as critiques on their technique.

Liaison with all echelons of the combat forces must be close. Alert, informed officers with a knowledge of the role photography can play in military operations, with sufficient rank to carry weight with other branches and sufficient transportation at their command, will prove of inestimable value. Identification cards for individual photographers to give them entry where they can find valuable pictures are a necessity.

Still picture numbering seems to have been the same confusing process that it proved in 1917-18. Over two hundred and fifty different systems of numbering came into the Still Pictures Library from overseas. Negatives should be numbered on a universal system established early and maintained in all theaters by all units. The system developed by OCSigO through APS was adequate. But it was not followed all over the world.

Processing can be accomplished efficiently by Women's Army Corps personnel. Although only a limited number of WACs were employed processing combat pictures, they proved competent. Such behind the lines work need not use able men.

Training, it cannot be overemphasized, should be fluid; it should be kept continually abreast of both military needs and of new equipment and techniques. To accomplish this, men will obviously have to be called in from camps and posts for refresher courses as either equipment or the military situation changes.

Stock-piling against the needs of any possible future war appears desirable only to a most limited degree. Photographic film and processing supplies are perishable, and deteriorate when stored over long periods. Equipment of some classes is not only harmed by long storage, but -- if engineering development is pursued as it should be -- is likely to become obsolete.

While it is desirable to have ample supplies of materiel available in anticipation of any eventuality, the disposal of such items as surplus is uneconomic. As an alternative, the photographic industry should be surveyed periodically, and a record kept of production facilities. It may be possible, through the issuance of a small number of peace-time development contracts, to assure that such facilities will be maintained to an extent capable of meeting unexpected military needs.

Processing facilities for motion picture film were concentrated, during World War II, at the Signal Corps Photographic Laboratory in Washington, D. C., and the De Luxe Laboratories in New York City. Two successful enemy air raids could have temporarily paralyzed the army's photographic activities. Film was stored at the Signal Corps Photographic Center, Astoria, Long Island City, N. Y., where a single bomb might have wiped out almost the entire motion picture record of the war. True, some few negatives or finegrain positives of much of this film existed elsewhere, other laboratories could have been hurried into service for duplicating such material as could be gathered, and to process newly-arrived film, but this would have been a lengthy procedure, and in war, lost time means lost lives. For this reason, it might be well to consider the use of several smaller processing laboratories, at unpublicized locations, separated by only one or two hundred miles. At today's flying speeds, the loss of time in transporting film the slight additional distance is negligible, and the possibility of enemy destruction of processing facilities would be greatly decreased.

Similarly if deep subterranean protection of film vaults is not economically desirable, the removal of such files to an unpublicized inland location would afford appreciably increased security. Prints could be left at headquarters for ready reference.

LIST OF APPENDICES

APPENDIX

A. Requirements for Combat Photography.

B. Training Literature, Combat Photography.

C. List of Combat Photographic Units.

D. Standard Operating Procedure, Combat Photographic Units.

E. Pictorial Mission, Combat Photography.

F. Motion Picture Procedure.

G. Multiple Film Scene Selector.

H. Motion Picture Review Board.

I. Return of Combat Footage to Theaters of Operation.

J. War Department Pamphlet, "Combat Photography."

K. South Pacific Base Command Photography.

L. Complete Statistics on Receipt and Distribution of Combat Still Photography.

M. Tactical Photography.

[redacted]

APPENDIX A

21 Oct 42

SUBJECT: Combat Photography for Army Ground Forces

TO: Commanding General, Services of Supply,
Att: Director of Training

1. In accordance with the request of the Chief of the Army Pictorial Service, the following notes are submitted as a guide to matters of photographic interest to the Army Ground Forces. It is planned to supplement these notes from time to time with more detailed requests from the various combat arms.

2. From the point of view of this Headquarters, combat photography in the several theatre of operations should concern itself only with matters that will be of training value. For example, no good purpose is served by photographic routine maneuvers, training, and other activities in theatres of operations that differ in no way from similar activities in this country.

3. It is believed that any directive addressed to Signal Corps Photographic Companies operating in theatre of operations should be divided into two categories so far as combat photography is concerned: (1) those pictures taken in training areas in theatres of operations; and (2) those pictures taken on the battlefield.

4. Training areas:

a. Commando training — film should show the progressive steps of training, methods of training, and training aids.

b. Street fighting — the general set up of the course and a group running the course.

c. Anti-aircraft defense — London or any other locality, showing methods of gun emplacements, distribution of guns (light and heavy) use and distribution of barrage balloons and searchlights.

d. Landing operations — Equipment used; methods of embarking and debarking; scope of training given in these operations.

e. Beach defense — Gun emplacements, use of obstacles; coordination and control of fires.

[redacted]

f. Bombing raids — Effect of bombs of various types and calibers; methods of fire fighting; handling of duds and delayed action bombs.

g. Capture armament — Close ups of all weapons; method of loading, aiming, firing. Should be sufficiently clear to illustrate operation of each type weapon to average American soldier. Functioning, care and cleaning, assembly and disassembly, and other details requiring extensive training are not desired.

h. Defense of airdromes — Type installations; distribution of troops and equipment.

i. Beach defenses — Any installations that may be photographed.

j. Road blocks — Permanent and portable; weapons and troops covering various type road blocks.

k. Tank traps — Various types.

l. Cantonments — Passive defensive measures in cantonments and bivouac areas against aircraft.

5. Battle areas —

a. Battle field recovery — Equipment used in recovery and maintenance in both forward and rear areas.

b. Hostile defensive works — Hasty field fortifications (individual entrenchments, weapon emplacements, wire, hasty obstacles); permanent or semi-permanent field fortifications (interior, exteriors, approaches, field of fire).

c. Hostile camouflage methods — All types.

d. Hostile armor (and armament) — All types.

e. Hostile transport — All types.

f. Operations of our troops — An effort should be made to follow a small unit (a squad or a platoon, or the equivalent) through various phases of combat.

g. Shelling and bombing — Effect on our installations and equipment; effect on enemy installations and equipment.

h. Miscellaneous combat — Films showing tank operations, patrol operations, and other types of actual combat would

[redacted]

have tremendous training value if sufficient continuity could be achieved to give a picture of what is taking place and how it is being accomplished. Random shots of battle field action have small training value except for creating a reservoir of stock. Sufficient continuity of patrol, for example, should be obtained to show its method of operation and the results it achieves. Pictures showing improper technique and resultant disaster are as valuable for the purposes of the Army Ground Forces as pictures of correct technique and excellent results.

6. It is suggested that the most fruitful results will be obtained by maintaining intimate liaison with the staff sections (particularly G-2 and G-3) of the unit to which combat camera crews are attached. This contact will provide advance information of areas where action of photographic interest and training value is likely to develop; it should also provide information and advice from the military point of view of subjects that have training value. Camera crews that lack military background have no way of determining military values. Most material photographed by such crews without prior consultation with trained military men will inevitably lack any training value. The larger part of the footage received from Signal Corps Photographic Companies operating abroad which has been reviewed by this Headquarters indicate aimlessness and lack of competent military directions.

For the COMMANDING GENERAL:

/s/ J. R. Dryden
J. R. Dryden
Lt. Col. AGD
Asst Ground Adj Gen

[redacted]

SUBJECTS TO BE PHOTOGRAPHED
FOR
ARMY SERVICE FORCES

1. Maintenance under unusual conditions, such as

   a. Details of unusual damage to all type of equipment and repairs thereto.

   b. Emergency repair method used by combat troops.

   c. Recovery of damaged materiel from the battlefield.

   d. Protective measures applied by maintenance units against air and ground attack, such as camouflage, disposition, etc.

   e. Welding under conditions of extreme heat or cold. Improvised methods of field rigging — recovery and use of enemy equipment.

2. Unusual Supply installations and procedures, such as

   a. During landing operations

   b. Improvised methods of storing, loading, unloading into and from all types of transportation.

   c. Location of advance supply dumps or bases, refilling points, ammunition supply points with description as to why it is unusual.

   d. Salvage operations — collecting, segregation, and disposal or reclamation.

   e. Protective measures for supply points — camouflage, obstacles, barriers, etc.

   f. Loading of all supplies for shipment by air transport.

   g. Destruction of all types of equipment to prevent capture, especially details of preparations for destruction.

3. Installations — unusual locations — camouflage — functioning in combat, such as

   a. Medical installations - collecting stations, clearing stations.

[redacted]

b. Ports of Debarkation - discharging cargoes - shore equipment and facilities - railroad yards.

c. Regulating stations and railheads.

d. Prisoner of War Enclosures - location - receipt and processing of prisoners. (Details)

e. Signal Installations at command posts (particularly desert and arctic), to show relative position of elements, message authentication systems handling classified matter.

f. Use of colored smoke in training or as signals in combat

g. Use of chemical agents in combat, to include smoke.

h. Enemy obstacles and means of overcoming them - road blocks, mine fields, contaminated areas, etc. (Detailed).

i. River crossing operations by our troops and the enemy.

j. Assault of strongly fortified positions, concrete pill boxes, block houses, gun casements.

k. Layout of advanced airfield and beach defenses.

l. Effect on structures and material of various types demolitions and shell fire with notes identifying types if possible

m. Landing of heavy equipment.

n. Baking, cooking, and messing during combat - especially use of the various ranges, ovens and field expedients.

o. Handling prisoners of war from time of initial capture until delivered to permanent inclosure. (See 3-d)

p. Operation of straggler lines

q. Methods and equipment used for jamming enemy radio

r. Methods of interception or interruption of enemy wire circuits.

s. Field expedients for signal communication equipment

Certified a true copy /s/ William A. Ulman, Major, Signal Corps

[redacted]

PHOTOGRAPHIC REQUIREMENTS
FOR
ARMY AIR FORCES

1. General requirements:

   a. Detailed information on combat conditions
   b. Terrain approach to targets
   c. Enemy formations
   d. Dust conditions
   e. Use of steel mats
   f. Building revetments
   g. Dispersion of camouflage installations
   h. Types of slit trenches
   i. All methods of base defense
   j. Ground Control operational flights
   k. Photographic record of field shops
   l. Repair methods using field expedients
   m. Problems of supply and maintenance in theaters
   n. Photographic records of new methods to handle local problems
   o. Pictures of unsatisfactory equipment, taken so they will be of assistance in analyzing the reason for failure.

2. Intelligence requirements:

   a. Interrogation of prisoners
   b. Interrogation of crash survivors

3. Air Surgeon requirements:

   a. Information on medical installations, interiors, and operations of sanitary devices in the field
   b. Full coverage of air evacuation of casualties
   c. Oxygen equipment
   d. Refilling of oxygen tanks

[redacted]

APPENDIX B

TRAINING LITERATURE, COMBAT PHOTOGRAPHY

TM 1- 219	Basic Photography	1 July 1941
TM 11- 400	Photographic Set PH-261	18 January 1945
TM 11- 404	Photographic Darkroom Equipment, Processing Equipment PH-395	29 May 1943
TM 11- 405	Photographic Darkroom Equipment, Processing Equipment PH-406	12 May 1943
TM 11- 409	Photographic Laboratories, Organization in Service Commands, Depots, Posts, etc.	12 June 1944
TM 11-2340	Identification Set AN/TFQ-1	30 May 1945
TM 11-2351	Exposure Meters PH-77, PH-77A, PH-77C, and PH-252-A	8 July 1944
TM 11-2352	Camera Equipment PH-104	26 February 1945
TM 11-2353	Camera PH-270 and Recorder PH-271	23 February 1945
TM 11-2360	Camera Equipment Mounting PH-515/MF	3 November 1944
TM 11-2361	Camera PH-324	20 February 1945
TM 11-2364	Camera PH-501-PF	9 December 1944
TM 11-2366	Photographic Equipment PH-383	5 October 1944
TM 11-2367	Identification Set, AN/TFQ-3	30 October 1944
TM 11-2368	Enlargers PH-275, PH-275A	30 October 1944
TM 11-2372	Printer PH-193	9 April 1945
TM 11-2381	Dryer PH-288	9 April 1945
TM 11-2385	Printer PH-192	15 March 1945
TM 11-2389	Camera PH-530/PF	9 January 1945

[redacted]

TM 11-2391	Printer PH-13-B	15 June 1945
TM 11-2394	Developing Equipment PH-253-C	28 February 1945
TM 11-2396	Cameras PH-330-A through PH-330-J	5 May 1945
TB SIG 149	Tropicalization of Photographic Equipment	3 February 1945
TB SIG 158	Glossary of Principal Photographic Chemicals, Their Characteristics, and Names in Six Languages	8 February 1945
TB SIG 159	Viewfinder PH-532/UF	9 March 1945
TB SIG 189	Cold Weather Photography	30 July 1944
TB SIG 190	Photography Under High Temperature Conditions	30 July 1944
WD Pamphlet 11-2	Standard Operating Procedure for Signal Photographic Units in Theaters of Operations	20 April 1944
WD Pamphlet 11-5	Combat Photography	22 March 1945
WD Circular 86, Part II	Combat Photography	26 February 1944

[redacted]

APPENDIX C

This ~~The~~ data ~~in inclosure~~ has been compiled from information available in Army Pictorial Service. Personnel figures indicate authorized photographic personnel only; are exclusive of administration personnel in photographic organizations; and do not take into account vacancies in authorized positions, unless specifically stated.

a. Motion picture processing overseas is reflected by the indicated location of the Signal Mobile Photographic Laboratory Units. In November 1944, the reorganized 4th Signal Mobile Photographic Laboratory Unit moved from South Pacific to Southwest Pacific, to augment the facilities there. In September 1944 the reorganized 5th Signal Mobile Photographic Laboratory Unit was destroyed by fire in Central Pacific, and for the next several months was virtually inoperative. All of the laboratories became parts of Signal Service Organizations subsequent to 6 June 44, in the designated theaters, and therefore do not appear as separate organizations in the last 2 columns.

(1) When no motion picture processing was available in a given theater of operation, unexposed film was rushed to the United States for processing at Signal Corps Photographic Laboratory, Washington, D. C. and/or Signal Corps Photographic Center, New York.

(2) Commercial motion picture processing facilities were utilized in varying degrees in Europe, Hawaii and Australia.

b. Still picture processing was performed by practically every organization listed. ~~in inclosure 1~~

c. Motion picture and still picture processing were performed overseas primarily for Signal Corps Photographic organizations by the respective Signal Corps laboratories. These laboratories may also have performed these services in varying degrees for other organizations, for troops, and for official correspondents in accordance with specific directives of the Theater Commanders.

[redacted]

		THEATER	7 Dec 41 Off - EM	6 June 44 Off - EM	8 May 45 Off - EM	16 Aug 45 Off - EM
Department Lab.		Panama	0 - 16			
"		Puerto Rico	0 - 3			
"		Hawaii	0 - 36			
"		Alaska		2 - 20	1 - 20	1 - 20
Sig Mobile Photo Lab Unit (T/O 11-94)	#1 6*	IB		3 - 45		
" " "	#2	ETO		3 - 45		
" " "	#3 1*	SEAC		3 - 45		
" " "	#4 2*	SOPAC		2 - 38		
" " "	#5 3*	CENTPAC		2 - 23		
" " "	#6 1*	ETO		3 - 45		
" " "	#7 1*	SWPA		3 - 45		
" " "	#8	ETO		3 - 45		
APS Production Unit	#7	SEAC		4 - 7		
"	#8	PGC		1 - 3		
"	#9-10	ETO		4 - 20		
"	#11	MTO		7 - 1		
APS Maintenance Dets (Casuals)		ALL		0 - 29		
Sig Photo Co (T/O & E 11-37)	#161 4*	USSOPAC	14 -141	14 - 81		
" "	#162	ETO	14@-133	17 - 99		
" "	#163	MTO-ETO		17 - 99	17 - 99	17 - 99
" "	#164	CBI		17 - 99	17 - 99	
" "	#165	ETO		17 - 99	17 - 99	17 - 99
" "	#166	ETO		17 - 99	17 - 99	17 - 99
" "	#167	ETOUSA		17 - 99	17 - 99	17 - 99
" "	#168	ETO-AFPAC		17 - 99	17 - 99	17 - 99
" "	#196 5*	MTOUSA		2 - 12	17 - 99	17 - 99
" "	#198	ETO-AFPAC		17 - 99	17 - 99	17 - 99
Sig Service Bn.	#810	ETO		1 - 6		
" (T/O & E 11-500)	#832	SWPA		31 -173		
" "	3114	Panama		8 - 77	8 - 77	8 - 77
" "	3116	CENTPAC		10 - 67	10 - 94	
" "	3117	"		4 - 16	4 - 16	
" "	3119	SOPAC			2 - 22	2 - 22

[redacted]

@ Estimated

		THEATER	7 Dec 41 Off - EM	6 June 44 Off - EM	8 May 45 Off - EM	16 Aug 45 Off - EM
(photo) Sig Service Bn. (T/O & E 11-500)	3908	ETO			43 - 322	43 - 322
" " (photo)	4026	SWPA			40 - 278	40 - 278
Sig Service Co.	#990	ETO				4 - 28
" (photo)	3131	MTO		12 - 124		
"	3135	AME		2 - 18		
"	3147	CBI				0 - 4
"	3175	AME				1 - 14
"	3264	ETO		6 - 24	12 - 48	12 - 48
"	3371	CBI			5 - 45	13 - 113
"	3374	China				18 - 127
"	3925	MIDPAC				21 - 213
5322 U. S. Photo Section SEAC		SEAC			14 -102	14 - 102
Sig Service Det (Photo Production)	#3221	ETO			6 - 10	6 - 10
" "	3222	ETO			6 - 10	6 - 10
" "	3223	MIDPAC			6 - 10	6 - 10
" "	3224	U S			6 - 10	6 - 10
" "	3225	MTO			6 - 10	6 - 10
" "	3226	US - ETO			6 - 10	6 - 10
" "	3227	" "			6 - 10	6 - 10
" "	3228	US			6 - 10	6 - 10
" "	3229	US - ETO			6 - 10	6 - 10
" "	3230	US			6 - 10	6 - 10
Sig Service Det (Photo Asgmt)	3231	MIDPAC			1 - 4	1 - 4
" "	3232	US			1 - 4	1 - 4
" "	3233	MIDPAC			1 - 4	1 - 4
" "	3234	"			1 - 4	1 - 4
" "	3235	"			1 - 4	1 - 4
" "	3236	"			1 - 4	1 - 4
" "	3237	US			1 - 4	1 - 4
" "	3238	"			1 - 4	1 - 4
" "	3239	"			1 - 4	1 - 4
" "	3240	MIDPAC			1 - 4	1 - 4
" (Newsreel Asgmt)	3241	MIDPAC			1 - 6	1 - 6
" "	3242	US			1 - 6	1 - 6

			THEATER	7 Dec 41	6 June 44	8 May 45	16 Aug 45
				Off - EM	Off - EM	Off - EM	Off - EM
Sig Service Det	(Newsreel Asgmt)	3243	ETO			1 - 6	1 - 6
"	"	3244	U S			1 - 6	1 - 6
"	"	3245	US			1 - 6	1 - 6
"	(Still Pic Lab)	4018	MIDPAC			0 - 5	
"	(Identification)	4019	"			0 - 4	
"	(Photo Asgmt)	4020	"			1 - 4	
"	"	4021	"			1 - 4	
"	"	4022	"			1 - 4	
"	"	4023	"			1 - 4	
"	"	4024	"			1 - 4	
Sig Service Platoon		3131	MTO			5 - 60	5 - 60
"		3167	AME				1 - 4
TOTALS				14 - 196	266-1791	360-2075	377-2231

Note 1* Earmarked for designated theater, but reorganized before shipment under Col FB, T/O & E 11-500.

Note 2* Shipped less photo section, see par. a.

Note 3* Shipped as Col FB, T/O & E 11-500, see par. a.

Note 4* Strength indicated on 7 Dec 41 is "actual strength 30 Sep 41" mentioned in existing records. Strength 6 June 44 reflects previous inactivation of two general assignment units, one Newsreel and one Identification unit.

Note 5* Authorized strength 6 June 44 was only two General Asgmt Units.

Note 6* Not shown as separate organizations after 6 June 1944 when they became parts of Signal Service organizations in the designated-theaters.

WAR DEPARTMENT PAMPHLET No. 11-2

SIGNAL PHOTOGRAPHY

STANDING OPERATING PROCEDURE FOR SIGNAL PHOTOGRAPHIC UNITS IN THEATERS OF OPERATIONS

WAR DEPARTMENT · 20 APRIL 1944

WAR DEPARTMENT,
WASHINGTON 25, D. C., 20 April 1944.

War Department Pamphlet No. 11-2, Signal Photography, Standing Operating Procedure for Signal Photographic Units in Theaters of Operations, is published for the information and guidance of all concerned.

[A. G. 413.53 (16 Mar 44).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:
J. A. ULIO,
Major General,
The Adjutant General.

DISTRIBUTION:

T of Opns (50); Island Comds (50); Base Comds (50); Def Comds Continental (1); overseas (50); Major Bases (50); Depts (50); Sv C (1); Armies (2); Corps (2); D (2); IC 11 (20); Tech Sv (2).

IC: T/O 11-37, 161st—168th, 196th Sig Photo Co; 11-94, 1st, 2nd, 4th, 8th Sig Mobile Photo Lab Units.

For explanation of symbols see FM 21-6.

CONTENTS

		Paragraphs
Section I.	General	1–4
II.	Photographic operations	5–7
III.	Handling and shipping film	8–9
IV.	Captions	10–12
V.	Classification, notification, and correspondence	13–15
VI.	Supply and transportation	16–17
VII.	Care and operation of equipment	18–21

SECTION I

GENERAL

1. INTRODUCTION

This standing operating procedure prescribes routine methods of establishment, operation, and maintenance in theaters of operations, of all signal photographic activities of the Signal Photographic Service. Theaters of operations and subordinate units will supplement this with local SOP's. Attention is called to FM 11–5, FM 11–20, TM 11–400, TM 11–401, TM 11–403, TM 11–404, TM 11–405, TM 11–406, TM 1–219, and MTP 11–4. In the event of conflict between procedures outlined in the above publications and this SOP, this SOP will govern.

2. FUNCTION OF PHOTOGRAPHIC UNITS

The primary function of Signal Corps photographic units is to make and/or process still and motion pictures which:

a. Convey to the War Department information on combat and field operations. When opportunities occur, combat photography is the first duty of all units.

b. Provide theater commanders with military information of immediate tactical, technical, or strategic value.

c. Convey to responsible staff agencies of the theater and to the War Department, information on personnel, matériel, conditions, and technique. Such pictures, made and processed at the theater commander's request, help to further the development and demonstrate the proper use of all weapons and means of warfare.

d. Provide new films and pictures for release to the public.

e. Provide historical records of the war.

f. Meet production requirements of specific projects assigned by the War Department to Signal Corps for training, orientation, historical, or public-relations purposes.

3. RESPONSIBILITY FOR SIGNAL PHOTOGRAPHIC ACTIVITIES

All signal photographic organizations will be under the command of the theater commander. A photographic officer (preferably of field grade) in the signal section of the theater commander's staff will be given adequate authority to carry out the commander's policies, directives, and requests relating to signal photographic activities in the theater. The photographic officer's specific staff functions and duties relating to photographic activities are as follows:

a. Assuring adequate facilities and freedom of operation for special coverage units sent by the War Department for temporary duty in the theater.

b. Making staff contacts to assure that photographic units assigned to combat photography in accordance with approved plans will be provided with necessary transportation, equipment, facilities, and subsistence and will be given necessary freedom of action in combat areas.

c. Submitting plans to the theater commander, to meet requests of the War Department for combat photography.

d. Bringing to the theater commander's attention matters pertaining to photographic missions which require his action, or about which he should be informed.

e. Making necessary staff contacts to facilitate smooth and efficient functioning of photographic units in cooperation with other arms and services, and to assure rapid delivery of films and pictures to the theater commander and the War Department.

f. Coordinating Army signal photographic activities with photographic activities of the Army Air Forces, the Navy, and all authorized photographic agencies.

g. Assisting, advising, and coordinating the Signal Corps photographic services.

h. Giving continuous study to operations affording opportunities for photography.

i. Obtaining security clearance for signal photographic personnel.

4. ORGANIZATIONS

The following organizations perform photographic functions in theaters of operations:

a. Signal Photographic Company, T/O & E 11–37.

b. Provisional Signal Photographic Production Unit.

c. Photographic Assignment Unit, T/O & E 11–500.

d. Photographic Laboratory Unit, T/O & E 11–500.

e. Signal Mobile Photographic Laboratory Unit, T/O 11–94 (superseded by T/O & E 11–500).

f. Newsreel Assignment Unit, T/O & E 11–500.

g. Identification Team, T/O & E 11–500.

h. Still Picture Laboratory Team, T/O & E 11–500.

i. Photographic detachment of Signal Service Company, Battalion, or Regiment. (These detachments may be laboratory or general-assignment units.)

j. **Special Coverage Section. (This section and the Provisional Signal Photographic Production Unit may be organized by the War Department and ordered on temporary or permanent duty to a theater to assist the theater commander in securing special photographic coverage.)**

SECTION II

PHOTOGRAPHIC OPERATIONS

5. GENERAL

a. The over-all plan of photographic coverage, based on the desires of the theater commander, will be prepared by the staff photographic officer. This plan will designate the respective missions of the photographic units involved, and give information pertinent to the preparation of detailed assignments, supply routes, collecting points, priorities, etc.

b. Assignment units are usually attached to various organizations in zones of communication, in order that members may familiarize themselves with the personnel, equipment, and operation of all branches. Contacts thus established help to insure effective combat photography by developing a cooperative attitude among local staff officers.

c. Signal Corps photographic personnel are *official* Army photographers, and as such are authorized to photograph classified material.

d. Official photographic personnel of the Army Pictorial Service will be furnished with War Department identification cards carrying a photograph and identifying information. Each card, bearing the signature of an appropriate officer in the theater of operations, will identify the bearer as an Army Pictorial Service Official Photographic Representative and will direct that, unless military requirements prohibit, he be assisted in carrying out his mission.

e. Officers-in-charge of photographic units on assignment to photographic coverage will report immediately to the commanding officer of the area to which the units are assigned. Officers-in-charge will explain the photographic mission to the commanding officer and be prepared to advise him on the use of available photographic facilities.

f. Where processing facilities exist, it is a fundamental policy to make all photographs available to the theater commander at his direction. However, this procedure should not be allowed to interfere with the expeditious return of combat photographs to the War Department.

6. COMBAT AREAS

a. Photographic units usually move forward into the combat zone with the units to which they are attached. To insure maximum combat coverage and, at the same time, provide means for the steady flow of film to the photographic unit and rapid delivery of exposed negative to collecting points and ultimate destination, any plan of photographic combat operations must be coordinated with the commander of the forces to which the photographic unit is attached. Provision should be made for maintaining communication between photographic units and their headquarters.

b. Officers-in-charge of photographic units must establish contacts which enable them to be advised of tactical plans at the earliest possible moment consistent with security considerations, in order that adequate plans may be made for coverage. Failure in this function results in haphazard photographic coverage and may cause a complete collapse in the photographic operation.

c. Officers requesting cooperation of commanders for the inclusion or transportation of photographers in a campaign or sortie should reduce requirements for organizational equipment and personnel to an absolute minimum.

d. Photographic laboratory units are distributed according to the plan of photographic coverage prepared by the staff photographic officer. Laboratory units of the Signal Photographic Company will process negatives and prints for photographic company units. Signal Mobile Photographic Laboratory Units will process motion pictures.

7. REAR AREAS

a. The basic photographic unit in the communications zone is the provisional Signal Photographic Production Unit, which is not designed for combat service. Primary functions of this unit are production of special features for public release as news, publicity, or historical records; and production of training films. However, special features, training films, film bulletins, and film strips will not be made in oversea theaters without prior approval of the War Department; nor in the United States without prior approval of the commanding general of the Army Ground Forces, Army Air Forces, or Army Service Forces for his respective command.

b. The Signal Mobile Photographic Laboratory Unit, based in the comunications zone, processes all motion-picture film required for the immediate use of the theater commander. Photographic and processing facilities for still pictures to meet rear-area requirements are also available in this unit.

SECTION III

HANDLING AND SHIPPING FILM

8. MOTION-PICTURE FILM

a. All motion-picture film should be slated, preferably at the beginning of each roll. Slating is the photographing of a written notation of pertinent data to assure identification of the film in relation to the caption sheets. The following information should be written on a small standard slate (or an improvised substitute) and photographed: Name of cameraman, organization, subject, date, place, and assignment number.

b. Exposed motion-picture negative will normally be sent from the combat area to the designated collecting points for transportation by the most expeditious means to Signal Mobile Photographic Laboratory Units in the rear.

c. If a work print is required by the theater commander, it will be made available at once.

d. The processed negative will be shipped *without delay*, by the fastest means available, to the Commanding Officer, Signal Corps Photographic Center, 35–11 35th Avenue, Long Island City, N. Y. Notification that the negative has been shipped will be sent to the Chief Signal Officer, Attention: Army Pictorial Service, War Department, The Pentagon, Washington 25, D. C.

e. Unprocessed, exposed motion-picture film, including 16-mm film, will be shipped in the same manner as processed negative. However, the cans must be unmistakably marked as unprocessed, and notation of the fact must be made on the memorandum invoice.

f. When it is essential that 16-mm prints be processed for immediate showing to the theater commander, commercial laboratory facilities may be used.

g. Upon request of the theater commander, 16-mm prints or 35-mm blow-ups will be returned from Washington to the theater for information and study. In the case of color film, 16-mm black-and-white prints will be made and sent to the theater commander at his request.

h. In the event of especially interesting subject matter, particularly spot news, the unprocessed negative will be shipped by air mail special delivery or air express, and a telegram dispatched immediately, to the Chief Signal Officer, Attention: Army Pictorial Service, The Pentagon, Washington 25, D. C. The telegram should state date of shipment, airplane number, amount of film, and other pertinent data.

i. Each can of film, processed or unprocessed, will be clearly numbered, and a corresponding notation will be made on the memorandum invoice and caption sheet.

9. STILL PICTURE FILM

a. DEVELOPING AND PRINTING.—Laboratory units at collecting points will normally develop still negatives as soon as the negatives are received from photographic units. Prints will be made at the collecting-point laboratory only when required for immediate local tactical use. Making prints at the collecting-point laboratory must not delay expeditious delivery of the negative to theater headquarters.

Developed negatives will be rushed to the Signal Mobile Photographic Laboratory Unit, or to theater headquarters, as directed by the theater photographic officer.

b. Cataloging Photographs.—The theater photographic officer designates an officer at theater headquarters to catalog incoming negatives immediately into three categories:

(1) *Spot news.*—Outstanding still pictures from the viewpoint of release to the public.

(2) *Selected subjects.*—To be sent to the War Department. Pictures classified as "selected subjects" include:

(*a*) News photographs of nationwide interest (views of combat and base activities, new equipment, nationally known men in service).

(*b*) Instructional photographs showing new training methods or techniques.

(*c*) Historical photographs taken to record events of historical importance, presentation of citations, etc.

(*d*) Unusual photographs depicting any phase of military activity in which the photographic treatment is outstanding (studies of "typical" soldiers, night views, silhouettes, and odd-angle shots).

(3) *Local interest.*—Not to be sent to the War Department unless the photographs have been released for local publication. If a photograph has been released for local publication, three prints, but no negative, are required for War Department files. The theater public relations officer is authorized to make security classification of photographic material which the theater commander desires to be published locally. However, authority for international release must be secured from the Bureau of Public Relations, War Department, Washington 25, D. C.

c. Additional Prints.—The Signal Photographic Laboratory Unit in a theater will make additional prints of still negatives (as required by the theater commander and the files of the laboratory unit) before the negatives are shipped to the War Department, except in the case of spot-news photographs. Prints of spot-news photographs should not be made at theater headquarters if the printing results in *any* transportation delay. Delivery of spot-news photographs from theaters of operations to the War Department will be given highest priority.

d. Marking Negatives.—(1) Negatives 2¼ inches square and larger will be coded and numbered consecutively at each photographic headquarters before the negatives are shipped to the War Department. Each negative will be placed in a separate negative preserver marked with the caption and negative number. The following information will be given:

(*a*) The code designation of the department, base, theater, or shipping station.

(*b*) The last two digits of the current year (e. g., 44 for 1944).

(*c*) The consecutive number of the negative. Consecutive numbers start on 1 January each year with the digit 1.

(2) Code designations and numerals will be separated by dashes. For example, Great Britain negative number 1823 for 1944 should be marked: ETO–44–1823. Any local numbering which theater laboratories want to place on a negative will be placed *before* the code designations and numerals described above, and will be separated from the standard numbering system by a slant-bar (/). When a slant-bar is used to separate the two numbering systems, the War Department will be concerned only with the numbers appearing *after* the slant-bar.

(3) A clean pen with a fine point and an *opaque* ink, preferably waterproof india ink, are used for lettering negatives. Lettering should be placed on the glossy side of the negative along the clear edge below the picture. If necessary, grain alcohol applied with a cotton swab may be used to remove india ink.)

(4) Negatives of 35-mm film will not be cut up into frames; each roll will be placed intact in a separate metal or paper container, or in a protective covering of paper. The rolls will be numbered on the blank space at the end of each roll. Rolls of 35-mm film are notched in the outer margin opposite each frame, to facilitate darkroom handling. If the numbers of the individual frames are not already marked on the roll, laboratory personnel will number each frame in ink. Frame numbers will correspond to the numbers on the caption sheets. Each 35-mm roll will be numbered as if it were a single negative, with the exception that reference to the frames within the roll will be added to the numerical designation. Reference to the frame is accomplished by adding to the roll (or negative) number a dash and the frame number. For example, frame No. 13 in the roll designated negative No. 1824, Great Britain, 1944, should be marked: ETO–44–1824–13.

(5) Color transparencies (cut film) will be used in holders that either are notched or contain number tags. Identification provided by the holder will be referred to on the caption sheet. Unprocessed color transparencies must be packed with great care to prevent damage from rough handling in transit. When practicable, subjects photographed with color film will also be photographed in black and white. When the color transparencies are shipped to the War Department, corresponding black-and-white negatives, properly numbered and captioned, will accompany the color transparencies.

(6) Signal Corps seals, either positive or negative according to the density of the picture, will be marked on either the lower left-hand or the lower right-hand corner of all prints. The ¼-inch seals will be used on identification pictures; the 5/16-inch seals on all 4-by-5-inch pictures; and the ⅝-inch seals on 5-by-7 or 8-by-10-inch pictures.

e. **Shipping.**—Still-picture film will be shipped from theaters of operations by the most expeditious means possible. Shipments will be sent directly to the Chief Signal Officer, Attention: Army Pictorial Service, The Pentagon, Washington 25, D. C.

(1) Shipment of spot-news negatives will not be delayed while prints are made; prints may be made, however, if no possible delay will result. If no prints are made before the spot-news negatives are shipped to the Army Pictorial Service, a requisition will be forwarded with each negative for four prints to be returned to the theater. The army commander receives two of the four prints, and the commander of the division involved receives the other two. Addresses of the commanding generals involved must be clearly indicated on the requisition. Negative numbers must be listed, and the captions must cite the divisional and army areas where the pictures were taken.

(2) Three 4-by-5-inch prints, contact or enlargement, will be made of all negatives (except spot-news negatives) or frames to be shipped to the Army Pictorial Service. Do not send any 8-by-10-inch prints to the Army Pictorial Service. Negative markings should not be masked. If for any reason the negative markings do not show on the print, write the number in ink on the front of each print. Enlargements (4 by 5 inches), rather than strip prints, will be made from 35-mm frames.

(3) Captions will be made in triplicate for each negative. One caption will be placed on each of the three 4-by-5-inch prints made from each negative. Even if fewer than three prints are shipped to the Army Pictorial Service, three captions will be sent for each negative or frame.

(4) One 4-by-5-inch print will accompany the negative. A separate package will be made of the additional prints. The package of negatives and prints and the package of additional prints should be shipped by different airplanes or vessels.

(5) Each package must contain a memorandum invoice listing the number and identification of the packages in the shipment, and the number and identification of duplicate packages shipped by other means of transportation. The invoice should list the numbers of the negatives in the package.

(6) Negatives and prints will be shipped by the fastest transportation available. Packages should be shipped as soon as they are ready and not be allowed to accumulate in order to make fewer shipments.

Section IV

CAPTIONS

10. INFORMATION INCLUDED

Photographic coverage is valueless unless the pictures are completely identified by properly documented supplementary notes. Such notes, called captions, must contain all the information necessary for analysis or for the writing of commentaries.

a. Caption Requirements.—Captions must answer the following questions:

(1) Who? Give full name of person photographed, grade, serial number, home town, and branch of service.

(2) What? Identify everything photographed.

(3) When? Give date, time of day.

(4) Where? State location as accurately as possible.

(5) How? State how operation is performed, and under what special conditions or circumstances.

(6) Why? State why the subject was thought worth photographing.

b. Additional Caption Information.—The cameraman's name and unit designation will be included in each caption. Numbers and other markings on the negative will also be shown on each caption. When necessary, maps, charts, or other documents should accompany caption reports to supplement caption data.

11. CAPTIONS FOR STILL PICTURES

Captions for still pictures will be typewritten or printed in triplicate on plain paper. A copy of the caption will be pasted on the back of each print. Even if no prints are sent (as in the case of spot-news negatives), captions in triplicate will be shipped with the negative to the Army Pictorial Service.

12. CAPTIONS FOR MOTION PICTURES

Caption sheets for motion-picture film will be executed in quadruplicate. One copy of the caption will remain in the theater files; the original and two copies will be inclosed with the film shipment and the memorandum invoice.

Section V

CLASSIFICATION, NOTIFICATION, AND CORRESPONDENCE

13. CLASSIFICATION

Developed film will be classified as to subject matter and caption information in compliance with provisions of AR 380-5. Undeveloped film will be handled as confidential material unless the contents are believed to warrant a higher classification, which in any case should be clearly shown on captions or caption sheets.

14. NOTIFICATION

a. Notification of each shipment will be sent to the Chief Signal Officer, Attention: Army Pictorial Service, The Pentagon, Washington 25, D. C. Notification will include exact date and means of shipment, number of packages, shipping ticket numbers, code identification of packages, courier identification (when used), designation of subject matter, physical description of contents of packages, footage of film and/or number of negatives, and information of special news interest or high security classification.

b. Notification of shipment of spot-news negatives and highly classified material will be made by radio or cablegram. Notification of shipment of routine material will be made by air mail. Air mail notification must travel by a different airplane from the packages to which it refers.

15. CORRESPONDENCE

a. All correspondence will be addressed to the Chief Signal Officer, Attention: Army Pictorial Service, The Pentagon, Washington 25, D. C., through channels. Correspondence must not be addressed to individuals in the War Department.

b. If the sender wants the correspondence to reach a certain person, the correspondence may be marked, in *addition* to the foregoing address, for the attention of the person who must be designated by name and grade.

c. Specific requests, questions, or communications that require official action must *not* be included in personal correspondence.

d. The sending of cablegrams and radiograms from each theater will conform to the procedure in force in the theater. Proper authentication of requests *must* be included in cablegrams and radiograms in order to assure action by the War Department (e. g., G-1 clearance on personnel requests should be shown unmistakably in cable authentication). To assure expeditious delivery of messages for Army Pictorial Service, the symbol *SPSAS* will be incorporated in the text of the message.

SECTION VI

SUPPLY AND TRANSPORTATION

16. PROBLEMS OF SUPPLY

a. Photographic supply in the combat zone presents a two-way problem, since exposed film and negatives must be returned to a base after use.

b. Expendable supplies will be requisitioned for a 90-day period. Standard requisition forms will be used. Emergency requisitions may be submitted only when they are fully justifiable. A level of photographic supplies sufficient for a minimum of 3 months and a maximum of 6 months should be maintained in accordance with Army Service Forces Catalog SIG 4-1. Avoid overstocking expendable supplies, in view of unfavorable storage conditions at advanced bases and supply-channel limitations.

c. The officer designating location of collecting points will be responsible for establishing motor relays or other adequate means of supplying photographic units with film and other materials. He is responsible also for the return of exposed film to collecting points and from collecting points to theater headquarters or other predetermined shipping bases. Officers-in-charge of photographic units are responsible for making contacts with members of the Army Air Forces, Air Transport Command, or other branches to expedite return of exposed film. The staff photographic officer will supply officers-in-charge of photographic units with map overlays designating collecting points and supply routes.

d. Replacement of damaged or lost equipment will be accomplished through the same channels as the supply of expendables.

17. PROBLEMS OF TRANSPORTATION

If organic transportation is inadequate to accomplish the photographic mission, it may be necessary to call on staff contacts for assistance. Staff contacts are the responsibility of all officers of the photographic service in the field.

SECTION VII

CARE AND OPERATION OF EQUIPMENT

NOTE.—Reference is made to TM 11-400, TM 11-401, TM 11-403, TM 11-404, TM 11-405, and TM 11-406 for description of standard photographic equipment.

18. CARE OF CAMERAS

a. The camera is to the photographer's mission what the rifle is to the infantryman's. Cleanliness and *proper* lubrication are of primary importance in camera care.

b. Constant check must be maintained on motion-picture camera aperture gates, sprockets, magazines, and take-up spools. Photographers working with still cameras must give particular attention to range finders, footage scale, shutter speeds, and synchronizers.

c. Lenses must be kept free of smudges, dust, sand, and other foreign matter. Take particular care to avoid scratching or otherwise damaging lenses. Remove dust with a lens brush, with lens tissue applied with a circular motion, or by blowing on the lens. A lens-cleaning fluid will also serve to check fungus growth on lenses in warm, moist climates.

d. Lens components must be checked for tightness, and the mount calibration verified by actual photographic tests.

e. Keep storage batteries at full charge, and test dry cells *frequently* for adequate voltage to operate synchronizers.

f. Prepare a check list on all equipment necessary to cover an assignment. Check the equipment against the list both before and after the assignment.

19. REPAIR

Repair of photographic equipment by photographers will be limited to first-echelon maintenance and care. Cameras requiring major repairs, shutter adjustments, and similar work will ordinarily be returned to the nearest authorized signal photographic-repair agency. Synchronizer and range-finder adjustments will be limited to simple maintenance, except by authorized personnel. Most unit photographic equipment is virtually irreplaceable, and must be serviced and used with appropriate care.

20. OPERATION

a. Always use a tripod, except in unusual situations. In any event, try to brace the camera firmly. In motion pictures particularly, unsteadiness may destroy the value of otherwise important photographic coverage.

b. Keep in mind at all times the technical instructions received in photographic training. Especially important are the following:

(1) Correct exposure.

(2) Proper shutter speed to stop motion in still photography.

(3) Accurate focus.

(4) Use of a lens shade.

(5) The use of filters only for a definite purpose. In motion-picture work particularly, the use of filters should be discouraged in order that coverage by different photographers may be cut into the same sequences.

c. Planning of motion-picture cameras must be exceedingly slow and smooth, if done at all. Ordinarily, panning should be limited to following movement.

21. CARE OF FILM

In moist tropical climates, film must be kept in its tropical packing until used. Once opened, film must be exposed and shipped as soon as possible. Exposed film must not be resealed without drying. Excessive moisture absorbed by film can be removed with silica gel, or by blotting the film with a piece of clean absorbent paper dried by a slow baking heat. Film can be dehydrated in 1 or 2 days by placing it in a sealed container in which has been placed the dehydrating agent properly covered with a cloth to prevent dust circulation. After dehydration, the film should be wrapped in dried paper and sealed in a can for shipment. Film which has not been dehydrated may be sealed in a can for shipment if the film is first wrapped in paper that has been especially well dried.

U. S. GOVERNMENT PRINTING OFFICE: 1944

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SPSHP

WAR DEPARTMENT
HEADQUARTERS, SERVICES OF SUPPLY
Office of the Chief Signal Officer

Washington, D. C.

In Reply Refer To
SPSHP 004.5 -
Policy, Pictorial
Procedure (9-19-42)

September 19, 1942

Subject: Pictorial Procedure

To: Commanding Officers, All Signal Corps Photographic Units

1. Photographs and information received from the field indicate that the mission and desired plan of operation for photographic units may, in some cases, not be clearly understood by such units. The missions of all Signal Corps photographic units are, in priority, to make motion and still pictures which will -

a. Convey military information to the War Department of combat and allied operations in the field,

b. Provide news pictures for release to the public,

c. Provide historical pictorial records of the war.

In addition, certain units are specifically assigned to the production of training and orientation films and films for public relations purposes.

Since pictures of combat may serve all of the above needs, they are the primary mission of all units when opportunities occur.

2. Probable subjects

a. Combat
(1) Preparation of personnel and equipment
(2) Departure of combatants from base
(3) Action engagements
(4) Return of personnel and equipment
(5) Captured enemy personnel
(6) Seized or wrecked enemy materiel
(7) Care and hospitalization of wounded personnel
(8) Presentation of citations
(9) Outposts

b. Base activities
(1) Offices, living and recreational quarters and messes, and activities therein
(2) Airdrome activities
(3) Dock facilities and activities
(4) Transportation and supply by land, air, and sea
(5) Communication activities, mail, telegraph, radio, etc.
(6) Memorial services and grave registration

17

[redacted]

(7) Identification of personnel
(8) Legal for use as evidence in trials, etc.
(9) Photographs of activities which promote good will between the Army and the inhabitants of foreign countries.

3. Much of your success in executing your mission in the field will depend on the cooperation you receive from units with which you work. To develop this cooperation is a matter of utmost importance. You will contact commanding officers of such units and explain your mission in order that commanders may best use your facilities. You will, in various situations, require advance information of activities, assistance in transportation and communications, and physical facilities, such as working space. All of these things are acquired more easily and more completely if you and your units are well known and well liked. Be helpful, and appreciative of help you receive from others.

4. Pictures must tell a story interestingly.

a. Constant thought and planning must be given to how subjects may best be photographed when opportunities occur. In the field, pictures cannot be arranged, but must be taken as they happen. Constantly imagine the photography of incidents which happen moment by moment. This will contribute to good actual photography in an emergency. All camera mechanics must become automatic, and the newsworthy story must be seen instantly and photographed instinctively. As with a rifle, "dry-shooting" makes expert marksmen.

b. Whenever it is possible, plan the picture so that all of the interesting elements of an incident are shown. Do not include too much in any one picture, but make several, each covering some worthwhile part of the whole story. A plan will assure that all elements are covered and that pictures are not disconnected and haphazard, with parts of the story being missed. Always have a plan, even if you must abandon or change it.

c. Study the tactics, technique, and equipment of all military units with which you may be associated. Picture things they do well and those they do badly, and, when possible, show them the pictures. In any case, send the pictures to the War Department. To know the strength or weakness of some method or device in the field will help improve military plans, equipment, or training.

d. Most news pictures include people doing something interesting to the public. It may be a thing of national, or merely personal, human, importance, but it must attract attention. Imagine what you would like to see published in a nationally important magazine.

[redacted]

9-19-42

SPSHP 002.5 -
Policy, Pictorial Procedure

e. Be sure that the essential part of the picture is made most important and is not lost in unimportant surroundings. Do not have backgrounds which distract from the story.

5. Captioning

A picture is of no value unless its subject matter is identified in a caption. A caption is a record of -

a. Who is shown,

b. What is shown,

c. Where it was made;

d. When it was made,

e. Photographer's name and organization.

Write the complete caption when the picture is taken. Captions will be typewritten on plain paper and pasted to the lower back edge of the print of a still picture or inclosed with motion picture film.

6. Identifying negatives

To permit their full usefulness, negatives and prints must be adequately marked to insure complete identification. The method of marking negatives which has been adopted makes use of a combination of letters and figures which will give the laboratory location, the sub-laboratory number (where a sub-laboratory number has not been assigned two zeros will be used), the year, the serial number of the negative, and, in cases outside the continental limits of the United States, the latitude and longitude, to the nearest degree, will be marked on the negative. (This latitude and longitude can always be determined from the local intelligence officer.) The lettering will consist of the following, written on one (1) line with a short dash between elements:

a. Service Command, Photographic Company, or country designation (usually identifying initials or numerals). For example, - 5SvC, HD, CZ, USAMIF, NFLD, IBC, 161

b. Branch number of the sub-laboratory within the Service Command. For example, - 207, 47, 52, 00, 7

c. Year designation of negative. Use the last two numbers of the year date in which the negative is made (calendar year basis). For example, - 42

[redacted]

d. Serial number of negative. Begin new series each calendar year.

e. Outside of the continental limits of the United States, the latitude and longitude of photographed location will be recorded, to the nearest degree.

The following are examples of lettering:

5SvC-207-42-673
HD-27-42-4
CZ-52-42-132
USHIF-00-42-1109-55N6W
NFLD-00-42-3001-38N-56W
IBC-00-42-608-63N18W
161-7-42-98- [illegible]

The lettering will be placed upon the back (not the emulsion side) of all film negatives of 3 1/4x4 1/4, or larger, so that it will show in the clear edge beyond the picture area when printed from an unmasked negative. Waterproof India ink should be used in lettering negatives. Application will be made with a clean pen with a fine point. When information on a negative does not reproduce on the print, due to masking or trimming, identification should be written on the back of print with pencil. Grain alcohol applied with a cotton swab removes India ink.

Inscription of data upon small negatives so that it will reproduce upon the face of the print is difficult without sacrificing neatness or impairing picture composition. Lettering on rolls or sections thereof, of 35mm negative will be on the edge outside the sprockets. The use of an excessive amount of lettering upon a valuable historical negative is undesirable. Frequently, such negatives will be transferred to permanent files of the War Department or National Archives, in which case, retention of the original lettering may be objectionable. Its removal may seriously damage the negative.

When available, Signal Corps seals, either positive or negative, according to the density of the picture will be used in either the lower left or right-hand corner of the picture. The 1/4-inch size seals will be used for identification pictures; the 5/16-inch will be used for 4x5-inch pictures, and the 5/8-inch size for the 5x7 or 8x10-inch pictures.

7. Technical Reminders

Follow technical instructions already received in training. Attention is invited particularly to -

a. Proper exposure,

b. Proper shutter speed to stop motion,

[redacted]

c. Proper focus;

d. Keeping cameras and lenses clean;

e. Using a lens shade, even if it is necessary to improvise one;

f. In tropical, moist climates keep film sealed prior to exposure. Remove the film from the camera as soon as possible after exposure. If air transportation is not available for immediate shipment, excessive moisture in the film should be removed as follows: Place rice or tea leaves (dried by slow baking heat) in a suitable large container and cover with a cloth to prevent circulation of dust. In a darkroom place the exposed film in this container and seal the cover with tape. After one or two days remove the film, wrap it in dried paper and seal in a suitable film can for shipment. One pound of rice or tea leaves will dry about 100 feet of motion picture film or the equivalent still film. If it is not possible to dry the film in this manner and air shipment is possible, wrap the film in well-dried paper and ship in a sealed can.

g. Make local hand development tests of motion picture film, when practicable, to test camera, film, focus, exposure, etc., in the field.

h. Use filters when necessary.

i. If necessary to "pan" motion picture cameras do so very slowly and very smoothly.

8. Shipping instructions

a. From Theaters of Operation -
   (1) All still and motion pictures will be shipped by air if feasible, addressed to Military Intelligence Division, War Department, Washington, D. C., marked for the Chief Signal Officer.
   (2) If air shipment is not possible, use most expeditious transportation available.
   (3) To assure delivery of pictures, shipments will ordinarily be divided into two or more packages, shipped by different airplanes or vessels.
   (4) Notify the Chief Signal Officer by radio of each shipment, including date, markings, if any, and plane, boat, or courier identification, and number of packages shipped.
   (5) Each package should include a memorandum invoice listing the number and identification of the packages in the shipment and traveling by other transportation, and negative numbers in each package.
   (6) Still pictures:
      (a) The negative and three (3) contact prints of still pictures taken in the Theaters of Operation by Signal

[redacted]

Corps photographic personnel will be sent in with a complete caption typed or printed on the negative preserver, and a duplicate caption pasted on the back of each print.

(b) The shipment will be packaged in the following manner: The negative and one (1) print will be packaged together with a memorandum invoice, as outlined in par. 8,a, (5). A second package will consist of two (2) contact prints with captions, as outlined above, together with duplicate of the memorandum invoice.

(c) The package including the negative, will be shipped first, followed by the other package by different transportation.

(7) Motion pictures will ordinarily not be developed locally, but the exposed and undeveloped film will be shipped to the nearest Signal Corps laboratory having adequate facilities for processing. The location of this laboratory may be determined from the Theater Signal Officer. Because film recently developed in the field was so damaged as to be unusable, deviation from this policy will be made only in case a commanding general considers it imperative to see the film before it can be developed with proper facilities and returned.

(a) If this laboratory is in the Theater of Operations a print may be made for the use of the local commander if it is desired. The negative will be shipped without delay by the Theater Intelligence Officer to the Military Intelligence Division, War Department, Washington, D. C., marked for the Chief Signal Officer.

(b) If there is no laboratory in the Theater of Operations the exposed and undeveloped film will be shipped by the Theater Intelligence Officer to Military Intelligence Division, War Department, as above, for processing at the Signal Corps Photographic Laboratory, Army War College, D. C.

(c) If more than one roll of film is shipped at one time, it will be shipped in two or more packages, as above.

(8) An effort should be made to arrange for every military airplane returning to the United States to carry at least a small amount of Motion Picture film if any is available for shipment.

b. Within the Continental United States -

(1) Post laboratories will ship three glossy prints and the negative to the Commanding General, Service Command, Services of Supply. The Service Command will in turn forward the prints and the negative to the Chief Signal Officer.

[redacted]

(2) Tactical photographic units and detachments will send two prints and the negative direct to the Chief Signal Officer.

(3) When it is not practical for a tactical unit to develop and print its films locally, the undeveloped film will be forwarded to the Signal Officer of the Service Command in which the unit is working, who will arrange for the necessary work to be done.

(4) All prints will have captions pasted to the back. Negative preservers will also have captions typed or written thereon.

(5) All motion pictures will have a caption sheet inclosed with the film.

(6) Ordinarily ship still pictures in packages weighing less than four (4) pounds), on franked mail, to the Chief Signal Officer.

(7) Still or motion pictures of exceptional interest will be shipped by air mail, special delivery, or air express, and the Chief Signal Officer, informed by telegraph of the date of shipment and plane number, when it can be secured.

(8) Military airplanes will be used whenever practicable to expedite shipments to Washington, D. C.

9. Supplies

a. All photographic units will immediately requisition supplies to provide a three (3)-month stock within the unit, the usual Signal Supply channels being employed. See Signal Corps Circular No. 10-1, with changes thereto, for complete list of photographic supplies.

10. Remember that cameras are guns and pictures are bullets. Good pictures today will help defeat the enemy tomorrow.

By order of the Chief Signal Officer:

K B Lawton

K. B. LAWTON
Colonel, Signal Corps
Director, Army Pictorial Service

[redacted]

APPENDIX F

AG 413.53
(8 Jul 43) OB-P-SPSPO

SUBJECT: Motion Picture Procedure

TO: Commanding General
United States Army Forces
A.P.O. 501
c/o Postmaster, San Francisco, California
Attention: Signal Officer

1. Reference your memorandum 19 June 1943, above subject, the following information is furnished as requested:

a. 35mm film is preferred over 16mm film as mechanical details, techniques, etc., are generally more suitable for Staff study and other War Department purposes. It is recognized that for forward echelon purposes, 16mm cameras have real advantages and if possible, should only be used for that type of coverage. 16mm negative is preferred rather than 16mm reversible print.

b. It is requested that the original uncut negative be forwarded to Washington together with an edited work print, if possible. Complete dope sheets are very important in that they furnish best means for getting film shown to those groups who have an immediate interest.

c. It is requested that only when absolutely necessary, or if no other film is available, should 16mm Kodachrome be used. Difficulties in processing together with time involved and the necessity for a blow up to 35mm makes this advisable. There will be certain subjects which can be more adequately covered with color such as enemy uniform identification, camouflage for colors involved, etc. On future requests for coverage from here, will advise when color is deemed necessary.

By order of the Secretary of War:

/stamped/ George R. Capp
Adjutant General

[redacted]

APPENDIX G

MULTIPLE FILM SCENE SELECTOR

The following description of the Multiple Film Scene Selector appeared in Vol. I, No. 1 of Army News, published by the BPR in Washington, dated May, 1943.

> The Western Union Engineering Laboratories have recently completed installation of five Multiple Film Scene Selectors in The Pentagon, Washington, D. C. These units are used by the Army Pictorial Service in conjunction with editing of motion picture films.
>
> Prior to the installation of the mechanism, it was the custom to show the film to one individual at a time. Said individual activated a buzzer whenever a portion of projected film was desired to be reprinted for his purpose. The operator in the projection booth inserted a piece of paper into the take-up reel, the process being called "papering" the film. Obviously many hours were expended in this individual reviewing of the same film as many representatives of various branches of the Army had to be shown the film in an effort to determine what parts, if any, would be required by their respective organizations.
>
> Those familiar with standard Western Union Perforators 10A know that each perforated tape is capable of having five intelligence holes and one feed hole perforated transverse to the length of tape for each tenth of an inch of tape.* The Reperforators are so arranged that each horizontal row of holes is associated with an editor so that on each perforated tape the requests of five editors will be recorded. The selection of film is made by the elimination of the associated horizontal row of perforated holes from the tape when the part of the film desired is being ordered.

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* Western Union Perforator 10A would be termed a "reperforator" under SigC terminology, for it is actuated by electrical impulses, rather than by a keyboard. Its peacetime commercial use was in telegraphic distribution centers.

[redacted]

The mechanism is arranged so that with the progression of one foot of film through the projector one transverse row of five holes will be perforated in the tape.

The unit consists of a so-called lead table and as many auxiliary tables as is necessary to cover the desired number of editors, each table recording the requests of five editors. In the installation just made, one of the sets consists of a lead table and three auxiliary tables offering the possibility of twenty editors registering requests and is so arranged that four auxiliary tables can be added to the extent of forty editors being able to register requests.

Each editor is provided with a switch and light unit located in his writing desk position. As he watches the showing of the picture, he makes a request for part of film by rocking a Levolier switch in the unit. A red lamp, also a part of the unit, glows, indicating that the request is being registered. When no more film is desired, the editor again rocks the switch at which time the light is put out, indicating that the request is ended.

The mechanism is capable of making requests for the two types of films projected, that is 35mm and 16mm.

The prepared tape, when ready for the cutting room is run through a Multiple Film Scene Selector Tape Meter (Reader). The Tape Meter counter is set at zero, the tape is placed under the latch at the starting point and is speedily fed through a tape transmitter until a request is encountered at which time one of a series of lights is lit indicating in which row of holes a request is recorded and stopping the tape so that the operator may read the point in film at which the request was made; the switch associated with the light then lit is thrown and the machine progresses until such time as another request is made or the initial request is ended when another light is lit and another reading made.

[redacted]

The installation is now operating very satisfactorily and the use of the Multiple Film Scene Selector allows twenty representatives to review the film at the same time and provides for them the access to the initial showing and selecting of the film so that the interested services will have copies of film they desire without any loss of time.

Captain H. W. Leasim, Signal Corps, is credited with the application of the equipment to the special needs of the Army Pictorial Service; the design, development and installation of the equipment was made by Messrs. Wm. Dudley, R. Dirkes and F. Haupt of the Western Union Company in cooperation with Captain Leasim.

[redacted]

APPENDIX H

V--PHOTOGRAPHY.--1. ASF letter (AGOB-C (17 Aug 44)-D) 20 August 1944, subject, "War Department Motion Picture Review Board," dissolves the War Department Motion Picture Review Board as of 21 August 1944. Hence, a revised procedure for the review and selection of combat photography by Army Service Forces staff agencies and chiefs of technical services is established. The Director of Military Training, Army Service Forces, will maintain an officer representing the Army Service Forces at the Signal Corps Photographic Center to advise and assist in the selection and review of combat photography.

2. The following revised procedures will govern the selection and review of combat photography:

a. Complete caption sheets of Signal Corps combat photography will be provided by the Chief Signal Officer for the Director of Military Training, Army Service Forces, and for the chiefs of technical services. The caption sheets will be an accurate copy of the original caption sheets as received with the motion picture combat footage from overseas, including clearly marked censor deletions, whenever the footage or caption sheets are so censored overseas, and will include a code letter to indicate the theater of origin, a shipment number, date, subject matter and, generally, length of footage. In addition, complete caption sheets of Signal Corps combat footage as presently edited at the Signal Corps Photographic Center in a rough cut, and prepared in separate reels for each subject, will also be provided by the Chief Signal Officer, including clearly marked censor deletions whenever the footage is censored overseas.

b. The caption sheets provided for the Director of Military Training, Army Service Forces, will be available for review by all other interested Army Service Forces staff agencies.

c. The chief of each technical service will be responsible for a thorough review of all caption sheets and of the Staff Film Reports. Arrangements for reviewing the Staff Film Reports by those agencies of the chiefs of technical services and Army Service Forces staff agencies responsible for the selection of combat film will be made through the Director, Military Training, Army Service Forces.

d. Selection of unedited combat photography for review will be made on the basis of items shown in the Staff Film Reports and those listed in the caption sheets.

e. Two types of selection may be made:

(1) Selection by specific item.--When the caption sheets list an item, or when an item is shown in the Staff Film Reports, which is of specific informational or technical interest to one of the technical services or Army Service Forces staff agencies, requests will

[redacted]

be made for this item by the caption sheet code and number, date, title, and length of footage (if given) or by description of this item if it appears in a Staff Film Report and not in a caption sheet. Such requests will be forwarded to the Chief Signal Officer, through the Director of Military Training, Army Service Forces. The Chief Signal Officer will forward for review by the Director of Military Training, Army Service Forces, and the interested technical service or Army Service Forces staff agency, a 35-mm fine grain print of the requested item.

(2) Selection of a general subject.--Items pertaining to particular subjects of general training interest, such as "Road Construction in the Southwest Pacific" or "Operations of a Railroad Battalion in Italy," will appear in the caption sheets from time to time. It is not desirable that prints of such items of general interest be forwarded before review by the Army Service Forces representative or appropriate officers from the interested agencies at the Signal Corps Photographic Center. The following procedures will govern in the review and selection of such items:

(a) The technical service or interested Army Service Forces staff agency will forward to the Director of Military Training, Army Service Forces, a request to review combat photography of a general subject. Such requests will list the items pertaining to the subject which have appeared in the caption sheets or Staff Film Reports. Each item requested will be followed by the caption sheet code and number, date, title, and length of footage (if given), or by description of the item if it appeared in a Staff Film Report and not in a caption sheet.

(b) If approved, such requests will be forwarded to the Chief Signal Officer who will then assemble, so far as possible, the combat photography listed by items in the request as well as any other current combat photography on the subject.

(c) When this combat photography has been assembled, the Director of Military Training will be notified, and, if necessary, he will direct the interested technical service to detail an appropriate officer to review the assembled footage at the Signal Corps Photographic Center and make specific selections. Negatives

[redacted]

will be used for such review if positive prints are not available. Similar arrangements will be made for interested Army Service Forces staff agencies, when necessary, by the Director of Military Training.

f. Once selections of items of combat photography have been made in accordance with one of the two methods outlined in e above, the chief of technical service or Army Service Forces staff agency may request that the footage selected be made available for use in one of the following forms:

(1) Technical Film Bulletins.
  (a) Silent print with captions.
  (b) Silent print without captions.
(2) As a film bulletin or part thereof.
(3) As part of a combat bulletin.
(4) Held for inclusion in a training film or film bulletin at a later date.

3. Unless otherwise directed by the Director of Military Training, all editing of the combat photography selected will be done by the Chief Signal Officer.

4. The present series of combat bulletins will be combined with a restricted version of the Staff Film Reports and will be released regularly under the series title "Combat Bulletins."

[redacted]

ARMY SERVICE FORCES

S[illegible]A Army Pictorial Service Memo No. 42

Office of the Chief Signal Officer
Washington 25, D. C.

SPSAA
20 June 1944.

MEMORANDUM for Chiefs of Branches, Army Pictorial Service.
C.O. Signal Corps Photographic Center.
C.O. Signal Photographic Laboratory.

Subject: Automatic Return of Combat Footage Material to Theaters of Operations.

1. The procedure outlined in this memorandum will supersede existing procedures in relation to returning motion picture combat footage material to Theaters of Operations. Automatic shipments will become effective as follows:

a. For return of unedited material, with footage received as of 20 June 1944.

b. For return of CF material, with subjects listed on screening program #112.

2. SCPC will send to Army Pictorial Service daily information regarding footage received.

a. Date received.

b. Shipping designation (symbol and number).

c. Footage.

d. Whether negative or print, etc.

e. Whether or not processed.

f. Transcription of any request on letter of transmittal, caption sheets, etc., for return of material to the theater.

3. SCPC will forward one (1) unedited master positive to BPR with two (2) sets of caption sheets. BPR returns one to SCPC declassified.

4. SCPC will edit combat footage, make one (1) dupe negative and one (1) print of this CF material for staff showings, and ship this dupe negative to SCPL and the print to APS with one (1) set of caption sheets.

5. In the event SCPL receives material directly from a theater, SCPL will submit to APS by messenger, the information specified in paragraph 2.

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a. In this case SCPL instead of SCPC, will send the unedited master positive to BPR (see paragraph 3 above), and will also send the original negative and a fine grain to SCPC for editing.

6. From the dupe CF negative, SCPL will:

a. Make such prints as may be required by staff agencies, upon instruction by Army Pictorial Service.

b. Comply with overseas requirements for CF footage in accordance with the policy outlined in the paragraphs to follow.

7. SCPC will comply with overseas requirements for uncut footage in accordance with the policy outlined in the paragraphs to follow.

8. When processed film is received, either negative or positive, original, master or duplicate, no prints will be returned to the theaters unless specifically requested, with the exception of the "C" series.

a. When processed or unprocessed film of the "C" series is received, two (2) 16mm prints from the CF negative will be returned by air mail to the theater:

"C" series To:
Commanding General
U.S.A.F. in China-Burma-India
APO 885, c/o Postmaster
New York, N. Y.
Attention: Signal Officer
For Theater Photographic Officer

NOTE: If CF footage is classified above restricted, air courier service will be used.

9. When unprocessed film is received from a theater, the following automatic shipments will be made:

a. One (1) unedited master positive will be shipped by water, unless air shipment is requested, of the:

"A" series To:
Commander-in-Chief
Southwest Pacific Area
APO 500, c/o Postmaster
San Francisco, California
Attention: Signal Officer
For Theater Photographic Officer

b. One (1) 35mm print of the CF negative will be shipped by water of the:

COPY

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"N" series To: Commanding General
U.S.A.F. in Middle East
APO 787, c/o Postmaster
New York, N. Y.
Attention: Signal Officer
For: C.O., 850th Signal Service Battalion

c. One (1) 16mm print of the CF negative will be shipped by water of the:

"O" (100) series To: Commanding General
U.S.A.F. in North African Theater of Operations
Chief Signal Officer, AFHQ
Attention: Theater Photographic Officer

d. One (1) 16mm print of the uncut footage will be returned by air priority established by the theater, of the:

"O" (800) series To: Commanding General
Headquarters, Fifth Army
APO 464, c/o Postmaster
New York, N. Y.
Attention: Signal Officer
For Army Pictorial Service

NOTE: This procedure is the responsibility of the Overseas Motion Picture Service, 850 Tenth Avenue, New York City 1, New York, Attention: Lt. Norman Barnett.

e. Two (2) 16mm prints from the CF negative will be shipped by water of the:

"D" series To: Commanding General
U.S.A.F. in Central Pacific Area
APO 958, c/o Postmaster
San Francisco, California
Attention: Signal Officer
For Theater Photographic Officer

"R" series To: Deputy Chief of Staff
Supreme Allied Commander
Southeast Asia Command
APO 432, c/o Postmaster
New York, N. Y.
Attention: Signal Officer
For Theater Photographic Officer

10. Radio requests for return of photographic material will be edited by Army Pictorial Service, and instructions forwarded for compliance:

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a. To SCPC for uncut footage to be returned.

b. To SCPL for CF footage to be returned.

11. Requests for return of photographic material to a theater, for which there has been no corresponding radio request, will be complied with automatically by SCPC or SCPL in accordance with paragraphs 6 and 7, as hereinafter described. First, however, SCPC or SCPL, whichever applies, will contact APS informally to confirm that there was no radio request.

12. Requests from the theater to deliver material to a third party will be forwarded to Army Pictorial Service for instruction.

13. Requests to return photographic material to the theater, (in the absence of radio request) will be complied with as follows:

	Theater Request:	Form of Compliance:
a.	Original negative.	Unedited duplicate negative will be sent.
b.	Print(s) covered by automatic policy per paragraphs 8 and 9 above.	No action necessary, unless request specifically states that this is to be in addition to such automatic shipment.
c.	Material in addition to that supplied under automatic policy (or where no automatic shipments have been provided) except 16mm.	If not in excess of 2 additional prints (edited, or unedited, 35mm) request will be filled. If extra, 16mm prints, or more than 2 extra 35mm prints are requested, refer to APS for instructions.
d.	Prints or dupes from 16mm material, including kodachrome, in addition to automatic policy per paragraphs 8 and 9 above, (or where no automatic shipments have been provided).	(1) If BPR is not interested in the material, original 16mm may be returned to theater. Additional prints or dupe negative requests will be referred to APS for decision. (2) If BPR selects material, after completion of BPR orders, the theater request will be referred to APS for instructions.

14. If, after editing, there is no footage available for shipment, SCPC will notify APS and SCPL. SCPL will then forward to APS theater requests for this material, stating why request was not filled. APS will notify the theater.

For the Chief, Army Pictorial Service:

/s/ Charles S. Stodter
Charles S. Stodter,
Colonel, Signal Corps,
Assistant Chief, Army Pictorial Service.

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WAR DEPARTMENT PAMPHLET NO. 11-5

Combat Photography

WAR DEPARTMENT MARCH 1945

[redacted]

WAR DEPARTMENT
Washington 25, D. C., 22 March 1945

War Department Pamphlet No. 11–5, Combat Photography, is published for the information and guidance of all concerned.

[AG 461 (19 Feb 45)]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL
Chief of Staff

OFFICIAL:
J. A. ULIO
Major General
The Adjutant General

DISTRIBUTION:

Continental: AAF(5); AGF(5); ASF(2); USMA(10); **Oversea:** A(10); CHQ(5); D(2). T/O & E: 11–37(70); 11–500, (FA) Newsreel Assignment Team(5), (FC) Newsreel Assignment Team (6), (FH) Sig Photo Production Team(8)

Refer to FM 21–6 for explanation of distribution formula.

WAR DEPARTMENT PAMPHLET NO. 11-5

Combat Photography

WAR DEPARTMENT • MARCH 1945

INTRODUCTION

This is the first in a series of pamphlets for still and motion picture combat photographers of the Army. The series will tell photographers what happens to the pictures they take, why some combat pictures are outstanding and why others are rejected. It will describe what new developments are being undertaken to improve combat photography and film service, and it will pool the experience of combat photographers in the field.

These pamphlets will not be published at regular intervals, but will be issued as new material is collected and its publication is warranted.

COMBAT FOOTAGE RECEIVES WIDE USE

In various forms, front-line coverage is now seen by the General Staff, theater commanders, commanding generals of service commands and technical schools, war workers, the American movie-going public, men and women of all the U. S. armed forces at home and abroad, Allied forces (through training films dubbed in foreign languages), and, via newsreels, the people of allied and neutral nations. Broadly speaking, combat footage is used in 10 different ways:

Combat Bulletin

This restricted version of the Staff Film Report is issued weekly to all hospitals in the domestic zone and all film libraries or exchanges in theaters of operations by direction of the Chief of Staff, United States Army. Its purpose is to provide a picture of the war on all fronts. This series is also available for exhibition to AGF and ASF troops in the domestic zone upon request.

Newsreels

A fine grain of every foot of combat film is delivered by Army Pictorial Service, immediately upon receipt, to the Bureau of Public Relations. Selected footage is released to the public through the newsreels.

Army-Navy Screen Magazine

A two-reel subject, produced every 2 weeks, is released overseas as part of the GI Movie Weekly and domestically as a short subject accompanying entertainment films at War Department theaters. It contains combat film and production footage, the topic of which is determined by the Information and Education Division, Headquarters, Army Service Forces. Latest reports indicate that this subject is seen by over 7 million Army and Navy personnel in the United States and overseas.

Industrial Incentive Films

Every 2 weeks a "Film Communique" made up almost entirely of combat film from all theaters is released for showing to war plant workers. These two-reel films and other industrial incentive films are provided for an audience estimated at 8½ million a month.

Orientation Films

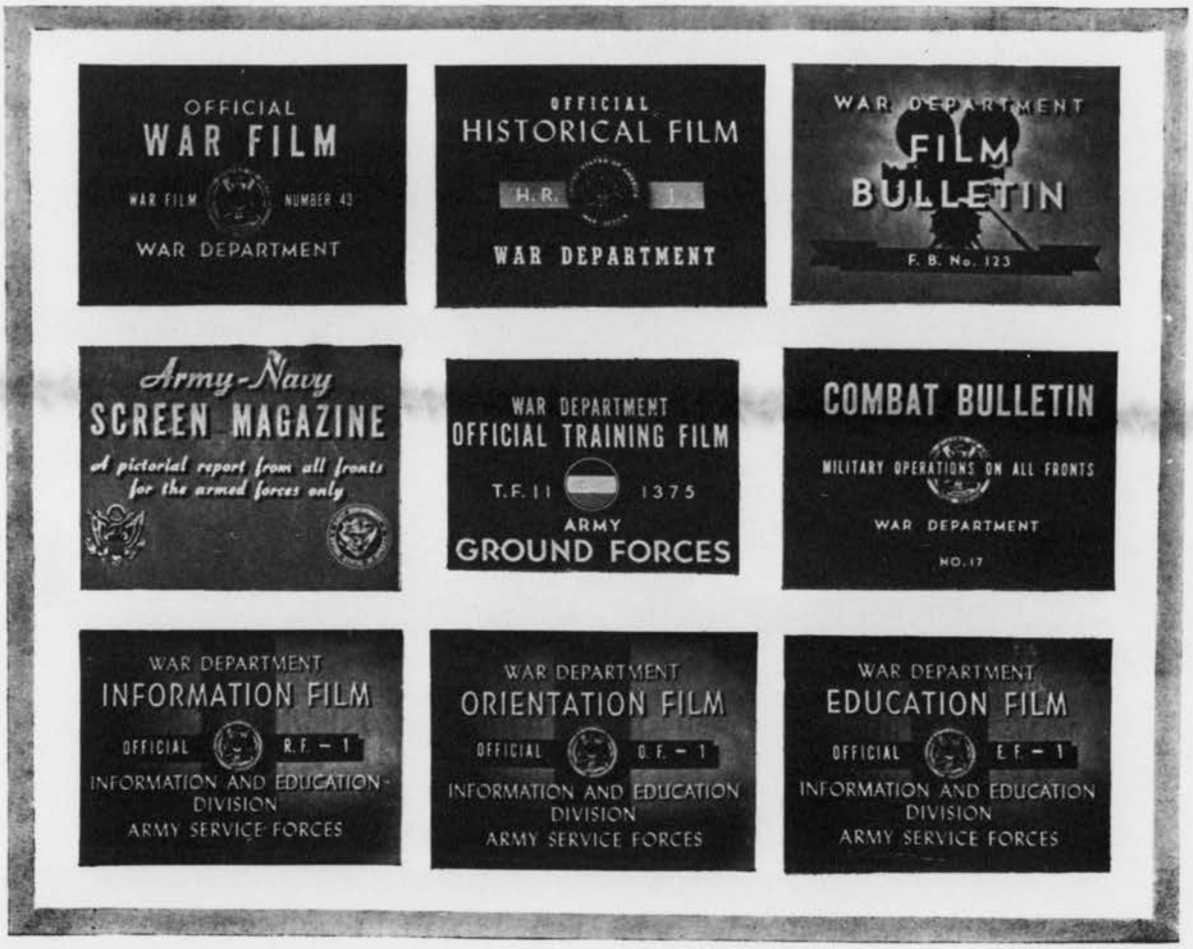
Combat footage is frequently used in the films of the "Why We Fight," "Know Your Enemy," and "Know Your Ally" series. These productions are shown to all members of the Army, war workers, and occasionally (as in the case of "Prelude to War" and "Battle of Russia") to the general public.

Historical Films

Visual chronological records of World War II, for future study and reference, are kept up-to-date in edited form. These films comprise the complete official record of all campaigns on all fronts as seen through the lens of the combat camera.

Central War Department Film Library

All combat film is indexed and cross-indexed as a permanent source of footage for films


OFFICIAL
WAR FILM
WAR FILM
NUMBER 43
WAR DEPARTMENT
OFFICIAL
HISTORICAL FILM
H. R.
1
WAR DEPARTMENT
WAR DEPARTMENT
FILM
BULLETIN
F. B. No. 123
Army-Navy
SCREEN MAGAZINE
A pictorial report from all fronts for the armed forces only
WAR DEPARTMENT
OFFICIAL TRAINING FILM
T.F. 11
1375
ARMY
GROUND FORCES
COMBAT BULLETIN
MILITARY OPERATIONS ON ALL FRONTS
WAR DEPARTMENT
NO. 17
WAR DEPARTMENT
INFORMATION FILM
OFFICIAL
R.F. – 1
INFORMATION AND EDUCATION DIVISION
ARMY SERVICE FORCES
WAR DEPARTMENT
ORIENTATION FILM
OFFICIAL
O.F. – 1
INFORMATION AND EDUCATION DIVISION
ARMY SERVICE FORCES
WAR DEPARTMENT
EDUCATION FILM
OFFICIAL
E.F. – 1
INFORMATION AND EDUCATION DIVISION
ARMY SERVICE FORCES

produced by the armed forces, Allied governments, U. S. agencies, and other organizations accredited by the Bureau of Public Relations.

Campaign Reports

These reports are prepared to show the progress and history of a particular campaign. They are principally made up of combat film to which is added maps, animation, and narration explaining the strategy of the battle. Typical of campaign reports is "Liberation of Rome," a 21-minute subject showing the action in Italy from Sicily to Rome. It was distributed to troops in GI Movie Weekly No. 50 and to the general public as well.

Training Films and Film Bulletins

As requested by the Training Division of Army Ground Forces and Army Service Forces, specially selected combat footage is used to illustrate particular military methods and doctrine.

Civilian Motion Picture Theater Releases

Film such as "Attack—The Battle for New Britain," "The War Speeds Up," "The Price of Rendova," and "Report from the Aleutians" are released to the general public through the War Activities Committtee of the Motion Picture Industry, which arranges for showings of Government films in commercial motion picture theaters.

V-MAIL

V-Mail photography, one of the most important functions of Army Pictorial Service, is developing many interesting photographic devices and techniques. The latest of these are the Airgraph Inspection Projector, which projects V-Mail film to a size of about 14 x 18 inches at the rate of 5 feet a minute, and the photoelectric aperature regulator for the continuous enlarger. The projector not only speeds up the inspection process, but also enables the inspector to maintain a closer check on exposure, slippage, and other points. The photoelectric regulator scans the film just before it is projected, and opens or closes the aperture according to the quality of the negative.

Photo-mail units in the field have discovered that an excellent source of laboratory equipment for their special purposes, as well as for ordinary photographic work, is a scrapped B–17. The big planes are bonanzas of tubing, small electric motors, plastic moldings and the like.

A print dryer was made by one V-Mail section from a flat piece of metal, two circular ends of a Signal Corps wire reel, some resistance wire for heat, a couple of gears, and a mattress cover.

THE REVIEWING STAND

The critiques below are sample comments from officers who review combat footage at the Signal Corps Photographic Center. Their study should give the cameraman valuable hints on the requirements for proper motion picture coverage. The material described is taken from recent stories. Footage from ETO is not mentioned here since it is reviewed in Europe. The comments below are all concerned with film originally reviewed at SCPC.

BURMA-INDIA THEATER

"Lifeline" Road Construction Near Paoshan, China

"Establishing shots consistently include buildings characteristic of the country. The action never looks as if it might have been photographed in Flatbush or in anybody's back yard. There is complete story coverage without wasted footage, good pictures of familiar processes in strange backgrounds."

Attack on Jap Pill Boxes and Trench Warfare, Tengchung and Sun Shan

"Exciting sequences of actual combat indicate that the two cameramen apparently took chances of being shot, to photograph Japs scurrying around a pill box as Chinese bullets dug up the surrounding earth. One of the cameramen, incidentally, slated every roll made under fire, thus showing fine professional discipline."

Irrawaddy Valley Jungle March to Bhamo

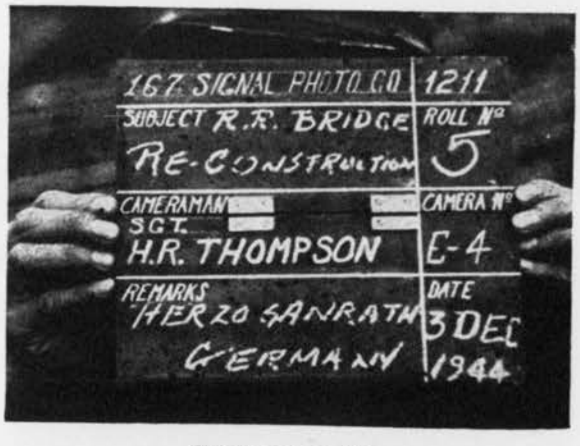
"There was not much going on in this sector, but close attention to composition and detail produced interesting and valuable footage on a march through the jungle, and equally good material on the Welsh Fusiliers."

Bivouac at Burmese Shrine

"By consistently making establishing shots and photographing details, this cameraman gets full value out of his material. Good photography, a variety of angles, and proper story development give editors the opportunity to cut the footage for maximum coverage value."

Burma Pipeline

"This was a mass effort by five cameramen on the construction of a pipeline in Myitkyina, Calcutta, Brahma Putro, Warazup, Mogaung, Goalpara, and Assam and a first class story



This is a good slate.

emerges from the combined footage, the various cameramen supplying the needed detail and photographing material so that it would cut together."

Surgery in the Rain at Seagrave Hospital

"In spite of rain, good photographic quality was maintained. Coverage of a field hospital shows surgical operations in the open air continuing under umbrellas when a sudden storm breaks over medical personnel and wounded alike."

Mules at Warazup

"A story in contrast, opening on a column moving through hot, dry, dusty terrain with the men wearing handkerchief dust-masks to ward off the dry silt kicked up by the mules. A little later, the same column is shown plodding through wet ground. Establishing shots show the column passing characteristic foreign buildings. A mind for detail also produced the angles essential to cutting of these stories."

MEDITERRANEAN THEATER

Captured German Strongpoints on Fifth Army Front

"This footage gives evidence of careful advance photographic planning wherever conditions do not require grab coverage. The part is integrated with the whole; for example, close-ups of German strongpoints were located in relation to each other and to the mountainous terrain. Rear shots from inside pill boxes show the strength of these positions and how they covered areas of Allied approach. Another story showed the results of GI ingenuity (ammunition boxes were rolled down a slope to the guns, thus saving labor). Material showing GIs' surmounting the difficulties of fighting and of daily living conditions is usually interesting."

Winter at Futa Pass

"Good photography, including scenes shot into the sun without halation, marks a story on GI winter activities and living conditions. There is a good shot of a civilian driving cows across the foreground while the troops set up living quarters in the background. An establishing shot showed tents in the foreground against a background of stone buildings of a village."

Mud on Fifth Army Front

"Three cameramen turn in a weather story with the gooiest mud seen to date. Fog and evidences of cold result in a complete story. Some very curious and interesting footage showed campfires lighted among massed tanks, and living quarters set up in pup tents and underground shelters in the midst of wintry desolation."

PACIFIC AREA

Red Cross Activities

"The Bureau of Public Relations requested coverage on Red Cross activities. One photographer's footage showed almost the only story development in many shipments received. His coverage also benefited from excellent direction through which natural results were obtained from amateur actors."

Practice landing at Lido Beach, L. I., photographed by student photographer.

SCHOOL WANTS COMBAT FACTS

The photographic school of the Signal Corps Photographic Center, which carries out the Army Pictorial Service training program, is working constantly to integrate the work of students with actual field camera operations. Letters from combat photographers, personal accounts of the experiences of newsreel and press association cameramen, and official reports of photographic activities in every theater of operations are utilized wherever possible in the training schedule.

In line with this policy, outstanding stills and newsreels from overseas are exhibited regularly to the students. Each week a recently returned photographer lectures and answers questions. The instructional staff of the training division contributes first-hand accounts of oversea photographic work, since many instructors are themselves veterans of the various fighting fronts. Every oversea cameraman should bear in mind that his pictures are valuable not only for military or news purposes but for training students at the school. If his stills or movies are outstanding, they will be shown to the students. This is particularly true of pictures taken by graduates of the school.

The latest phase of the school training program is color photography. This growing field is represented by SCPC at a newly-built laboratory for color prints and the development of Ansco transparencies. Several display cabinets have been built for the showing of 35-mm and 4 x 5 transparencies taken at the school. It is especially helpful to receive word from the field regarding results obtained in color photography, quality of color work, difficulties, etc.

More and more emphasis is being given to actual military assignments for the students at the school. In recent months photographic teams have been sent to cover amphibious landing maneuvers, parachute training, tank demonstrations, and hospital trains.

One point which is particularly stressed in the motion picture course is the development of story and continuity sense. Students are required to find their own assignments during one phase of the course. This again is an activity which is very largely guided by the work of the men overseas, since the students try to pick assignments similar to those they will shoot on the other side.

In every department of the school and every phase of training, the aim is to train pictorial personnel to meet the problems they will face when they go into action. That is why the experience and reactions of the men in the field are so important. That is why full and detailed reports should be sent in at all times.

PICTURE LIBRARIES

Motion Picture

The Central War Department Film Library at the Signal Corps Photographic Center acts as the custodian of official motion picture film that comes within the jurisdiction of the Army Pictorial Service. As such, it receives combat pictures from theaters of operation and other motion picture photography taken overseas and in continental United States by Signal Corps cameramen. In addition, selected footage is turned over to the Library from other sources such as the Navy, Marine Corps, Army Air Forces, commercial newsreel companies, and various United Nations agencies. The Library also keeps prints of all types of motion pictures produced by the Army Pictorial Service.

To see that every foot of worthwhile film shot by a Signal Corps cameraman gets proper consideration, the Central War Department Film Library operates a complete library service. The footage received by the library is edited, cut, classified, and indexed. Material selected for the file is stored in the vaults for subsequent use while the rest is disposed of after a reasonable length of time. Fine grains are made from the original negatives for the working library; the negatives themselves are kept in the permanent film collection.

As film is received from the field—or from the studio—it is indexed and cross-indexed, then permanently filed with its caption sheet. The index system is designed so that the officer in charge, or his assistants, can pick out any required shot and give the name of the cameraman in a few moments. It is very important that detailed caption sheets be provided with film sent in from the field, since it is on the basis of caption material that footage is indexed for dates and location. The Library staff prepares final caption cards for the files. (If, for example, a sequence shows a Japanese-American Bazooka gunner stopping an enemy tank, the caption sheet describing all the long, medium, close, and reestablishing shots would be filed in the Library in several places—under bazookas, tanks, Japanese-Americans, etc.)

Much combat footage that is not immediately used in SCPC production is later requested by other Governmental agencies or private organizations authorized by the Bureau of Public Relations. In the first 11 months of 1944, the Library filled requests for 2,700,000 feet of black and white 35-mm. 2,800,000 feet of duped negative, 1,300,000 feet of master positives, and 218,000 feet of 16-mm.

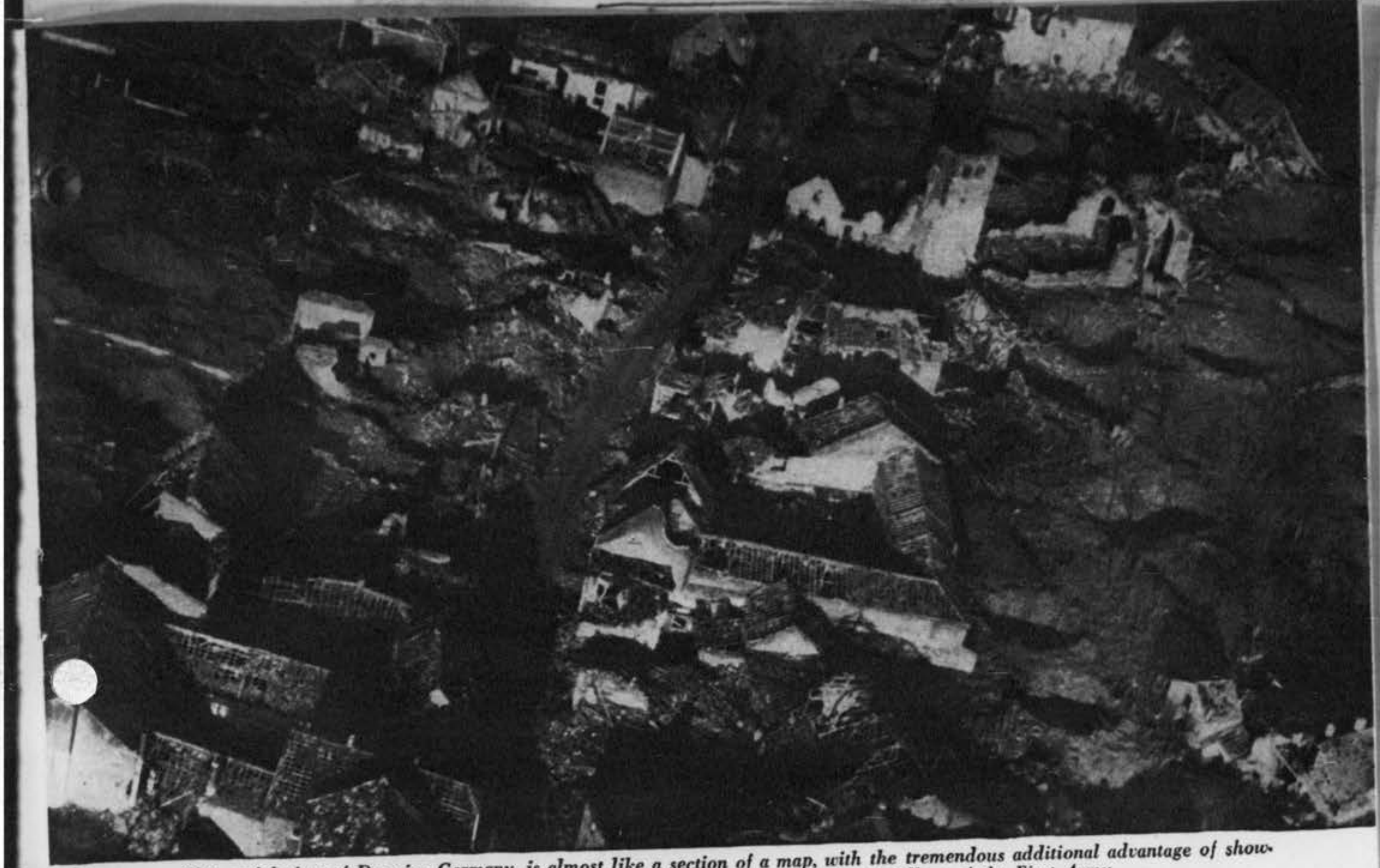
Still Picture

The Still Picture Section, Army Pictorial Service, is located in Washington, D. C. Here negatives from overseas and from continental United States are inspected by skilled photographic officers. About 10 percent of the films are retained for the section's permanent file, which is a pictorial record of all the Army's activities since 1917, including the first world war. This permanent file contains 200,000 pictures. The section's temporary file has more than 125,000 pictures.

Many different agencies use these still pictures. About 260 a month are released to news publications through the Bureau of Public Relations. Accredited outside agencies obtain 2,600 prints a month. One thousand have gone to various theaters of operation in the past 12 months for the information of commanding generals. War Department staff agencies have used some 7,000 pictures in the same period.

The index and positive files of the section are located at The Pentagon, Washington, D. C., where they are available to War Department and other authorized personnel. The pictures are printed at the Signal Corps Photographic Laboratory in the Army War College.

For instructional and information purposes, stills are often blown up and mounted on special Army Pictorial Service display panels throughout The Pentagon.

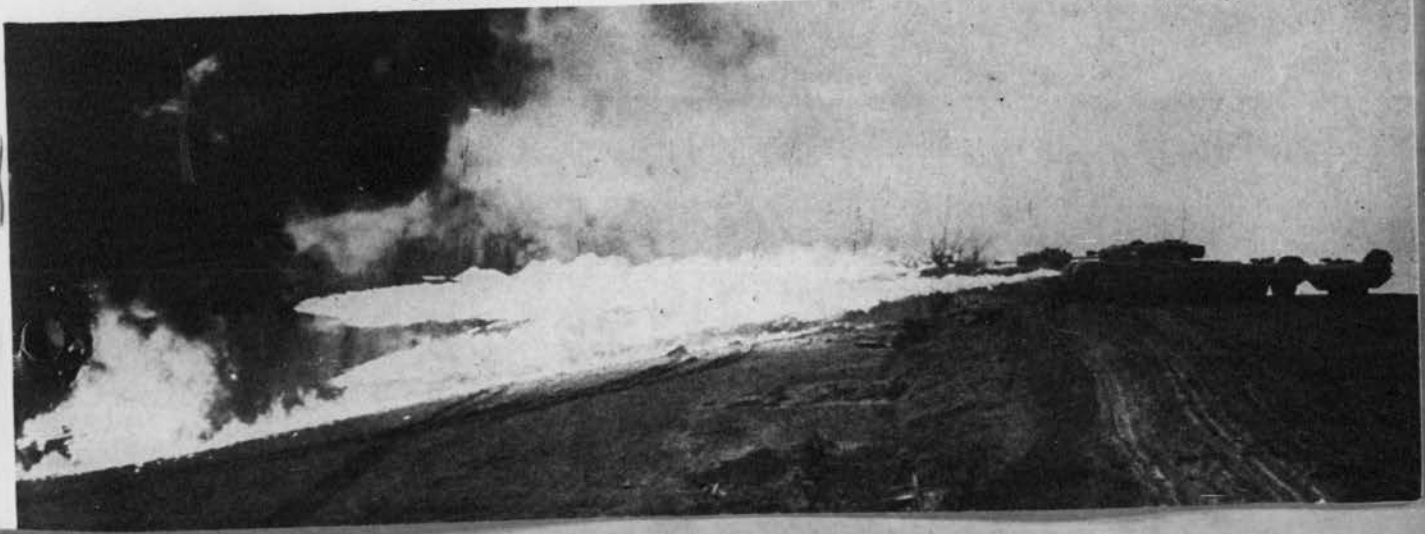


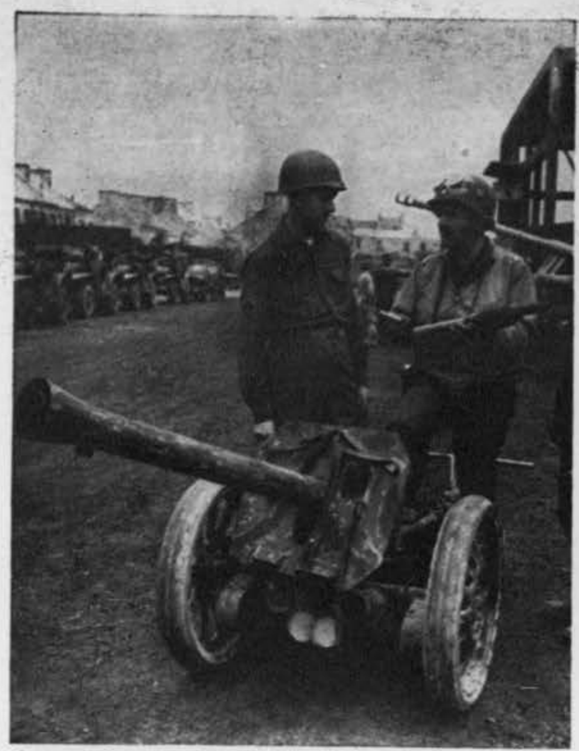
This aerial view of Durwiss, Germany, is almost like a section of a map, with the tremendous additional advantage of showing graphically the effect of a saturation attack by American artillery of the First Army.

PICTURES WITH A MILITARY VALUE

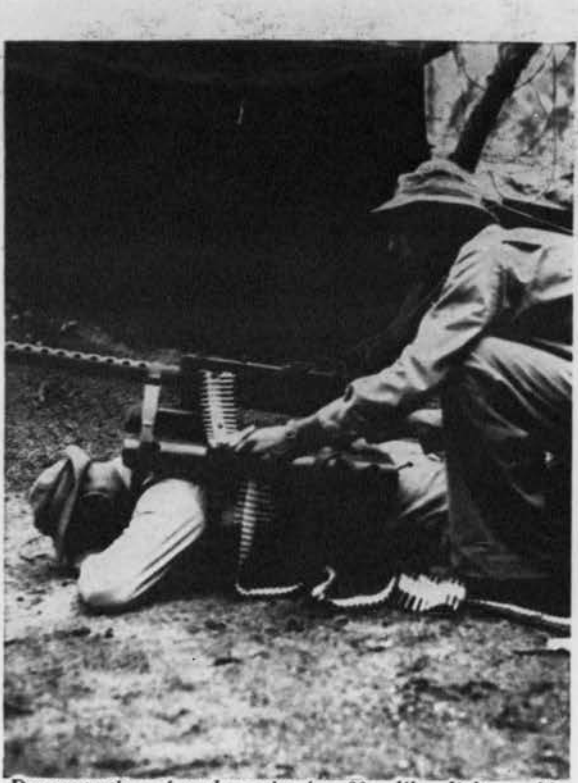
The stills on this and the following page were chosen from the files of the Still Picture Section, Army Pictorial Service, Headquarters, Army Service Forces, as representative pictures serving a technical military purpose. The Signal Corps photographers who took these pictures succeeded in conveying important military information through proper use of their cameras.

Flame thrower demonstration photographed so that the range and nature of the flame, as well as the source, can be seen quickly. The perspective chosen for this shot is particularly sound.

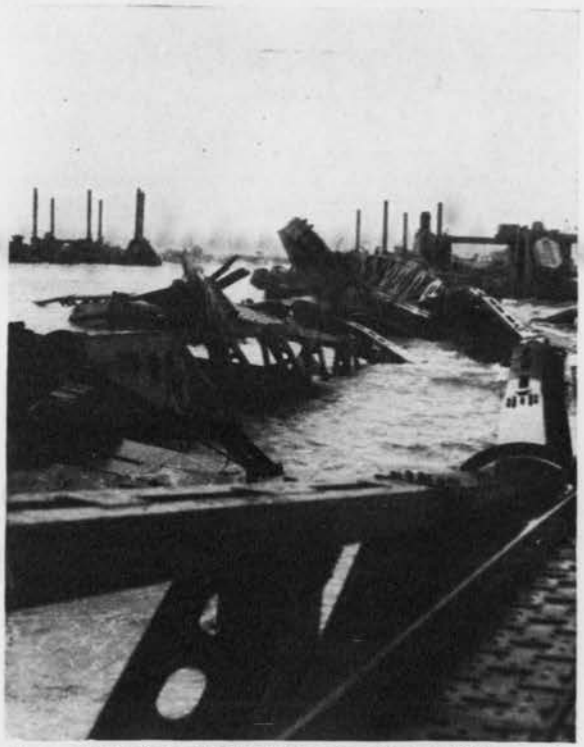




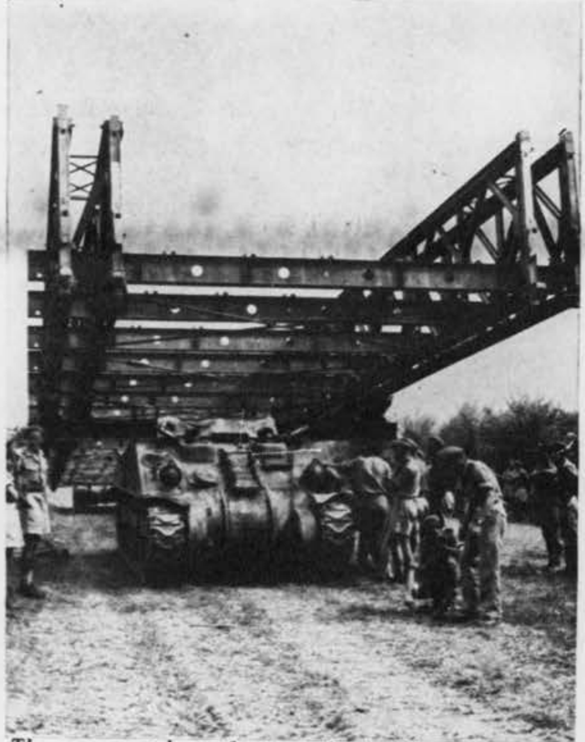
A secret German weapon photographed promptly at Cherbourg. The weapon is an anti-tank rocket gun with a closed breech. Note that the picture also includes a view of the type of ammunition used.



Demonstration of pack carrier for .30 caliber light machine gun at Bougainville. The picture was excellently set up to give the whole story of the device at a glance, The poses are not stilted.



An excellent view of damage to a beachhead bridge on the French coast, telling a story that would take long paragraphs in a written report. Damage to military equipment can best be shown by pictures.



The camera catches a fine example of military ingenuity in this photograph of the erection of a Bailey bridge near Pistoia, Italy. The bridge is being moved into position with the help of a Sherman tank.

THE PERL JOB

When you are on a Pacific beachhead or wading through the European mud you may think you are giving your photographic equipment the first pay-off test. You are not.

As far as photographic supplies and equipment are concerned, the world's greatest proving ground is a laboratory at the Signal Corps Photographic Center in Long Island City, New York. The Pictorial Engineering and Research Laboratory, known as PERL, tests every type of camera, film, projector, and photographic accessory, before it is shipped. PERL has testing devices and methods that make normal field wear and tear look like gentle aging.

The PERL staff were testing 36 different products as this pamphlet went to press. These ranged from a portable enlarger, 4 x 5, to plastic sheets for AGO cards, technicolor monopack film, cameras, projectors, paper, and chemicals. Ninety other products were being examined so that specifications for them could be drawn up. In addition, PERL has designed such varied items as a mobile darkroom, a camera mount and equipment carrier for the ¼-ton truck, portable still printing and enlarging equipment, and a photographic periscope.

All supplies and equipment are tested in PERL's salt spray and weather machines, where every climatic condition can be duplicated. Every stress, strain, temperature reaction, vibration or corrosion, is measured and tabulated. Practical recommendations for fungiproofing and winterization are evolved.

Equipment Maintenance Lists, Spare Part Lists, Lubrication Guides and Technical Manuals for all photographic equipment are based on data compiled by PERL.

The Field Liaison Branch of the Laboratory is constantly working with photographic personnel throughout the Army in order to obtain first-hand accounts of what is right and what is wrong with the equipment supplied. Any suggestions or constructive criticisms from the men in the field are welcome. Ideas about equipment and comments from the field come to PERL through informal letters and the regular Army Pictorial Service channels. Often temporary expedients devised to meet an emergency overseas can be adapted by PERL for general use.

Generally, when PERL adapts or develops a new photographic item it makes the design available to the various manufacturers who then determine whether and for how much they can manufacture the product. One of the most recent such projects is a photographic helmet with the front hinged so that it can be raised to accommodate a camera finder against the photographer's eye.

Another function of PERL is the recommendation of standard procedures for the operation and maintenance of photographic materiel. All such procedures are based on research and field experience and are designed to help every man concerned with Army pictorial activities to do the best job possible.

All new and existing photographic supplies

and equipment are investigated by PERL to make sure that Army Pictorial Service has the best tools for the job. If you should read about some sensational new photographic development, you can be sure that PERL has already tested it for the Army or will be testing it before many days have passed. The equipment you receive is the finest that PERL, APS, and the photographic industry can provide. Your experience with it, however, may reveal ground for improvement. If so, PERL wants to know.

LOCAL COLOR

Movies a La Russe

Tuesday and Thursday evenings bring home sweet home a little nearer for the American military and naval personnel stationed in Moscow, USSR. On those days, thanks to Hollywood gift films, the Army Pictorial Service, and the Persian Gulf Command (which sends the pictures), new movies from the United States are shown in the projection room of the U. S. Embassy before a limited audience. Truck transportation to and from the showings is provided for the audience, since personnel of the military mission live in various parts of Moscow. This is the only American amusement available to U. S. personnel in Moscow.

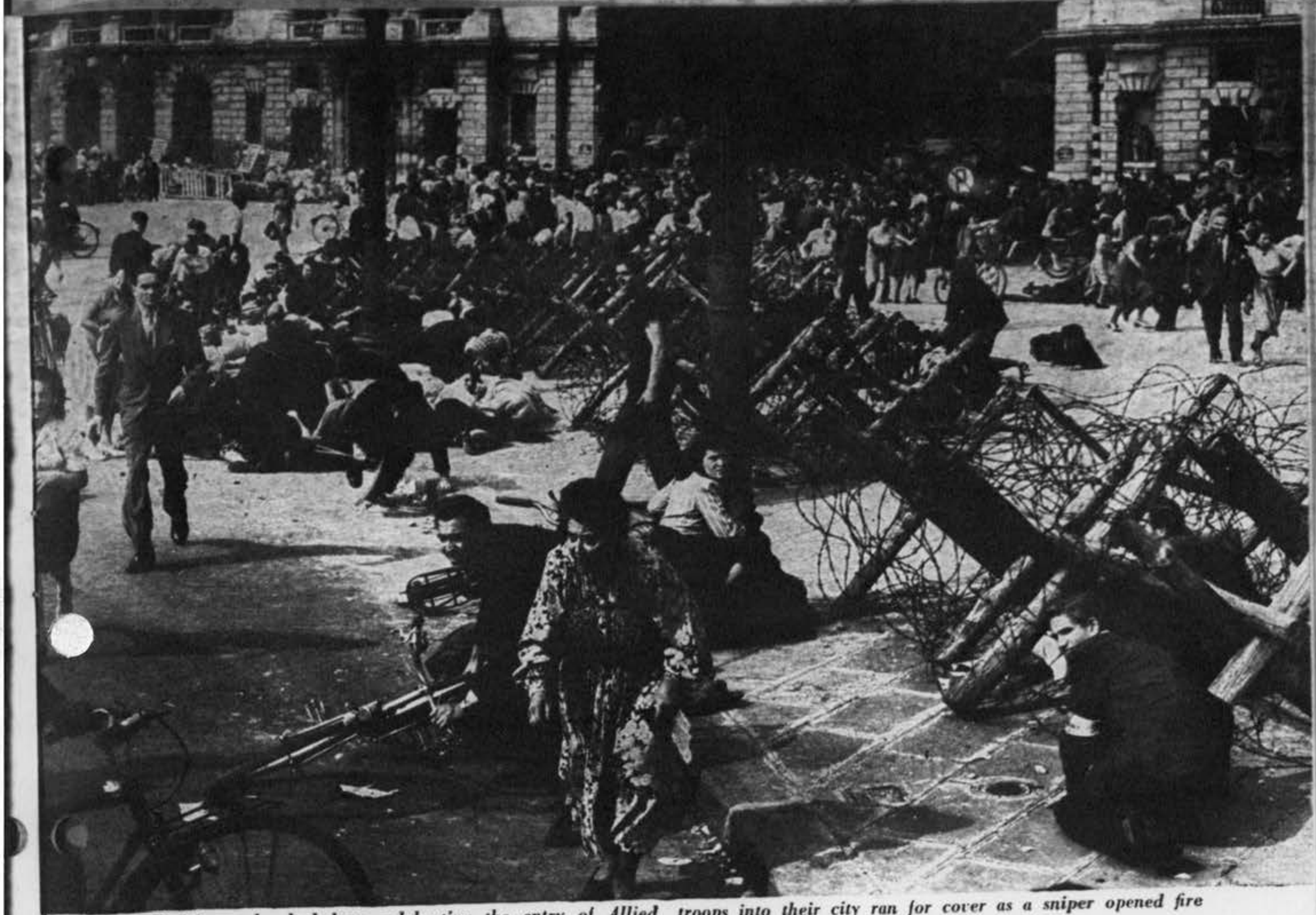
The French Have a Word for It

Something new in film dubbing is reported from an unnamed island in the Pacific. Because of the large number of French troops on the island, special screenings of American 16-mm entertainment films are conducted. Those films are picked which can be most readily understood without a knowledge of English. "To overcome the language difficulty," says a report to Army Pictorial Service, "an interpreter is sent along with each film and, through a special microphone hook-up, the interpreter explains the film as it is being screened." These projectionists and interpreters are American volunteers.

20° Calmer Inside

With the Germans only a few yards away and most of the fort still in enemy hands, men of the American Fifth Division had movie shows inside Fort Driant, biggest of the Metz fortifications. Before the fortress fell to American infantrymen, a tank drove up to one room captured by our forces and delivered a 16-mm projector complete with film. In this makeshift theater, with a seating capacity of 35, "Gaslight" and other pictures were run day and night while bitter fighting continued just outside.

Combat officers are in general agreement that movies are a number one pick-up for battle fatigue. At Driant they proved it.

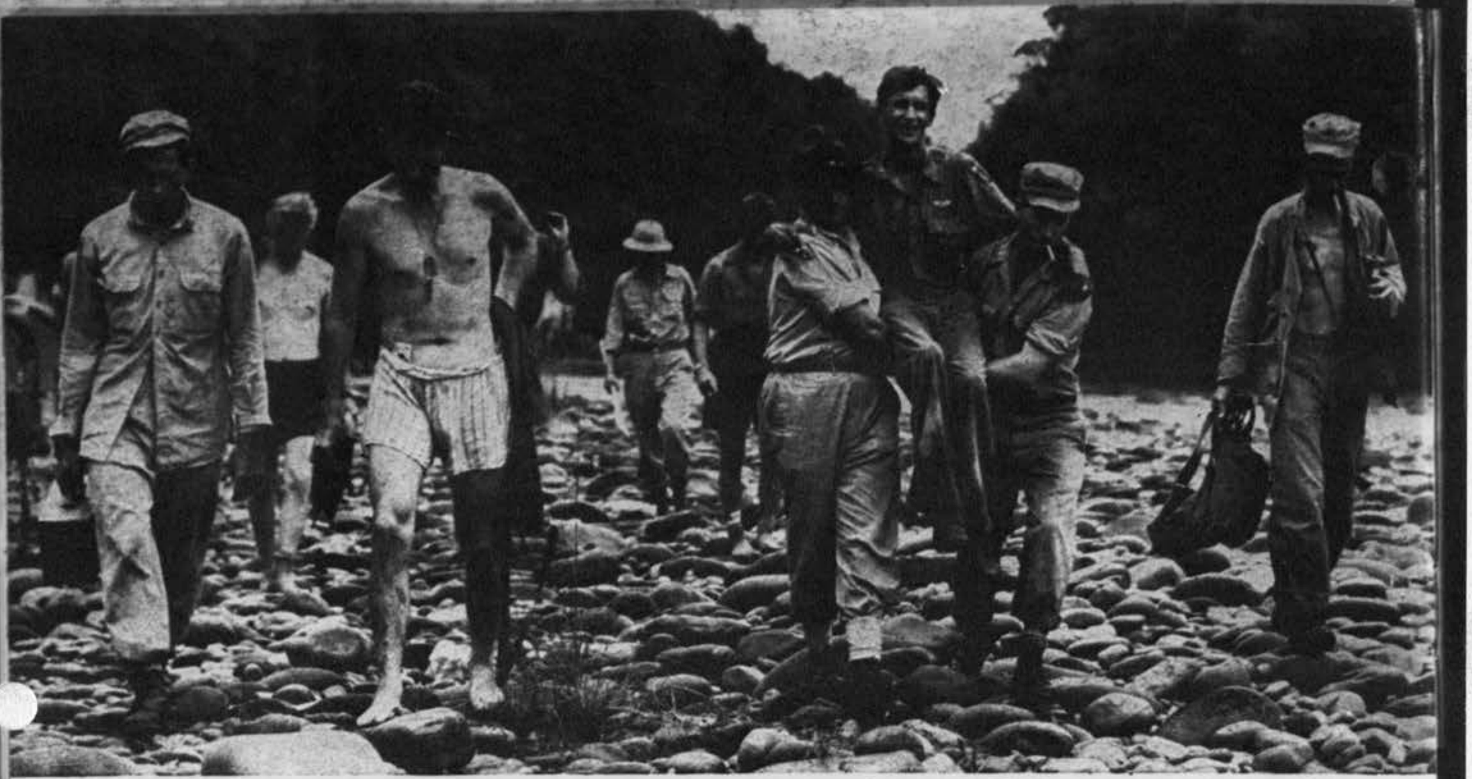


Parisians who had been celebrating the entry of Allied troops into their city ran for cover as a sniper opened fire from a nearby building. The crowd was just breaking when this picture was taken.

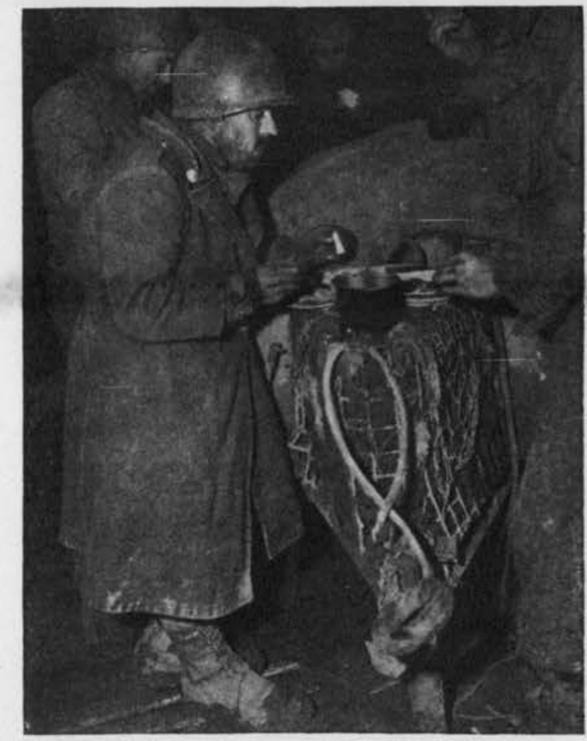
STILLS WIDELY USED IN RECENT MONTHS

A GI who has been at the front for many months reacts to his first glimpse of a soft white bed at an American Army rest center in France, without even waiting to take off his gear.

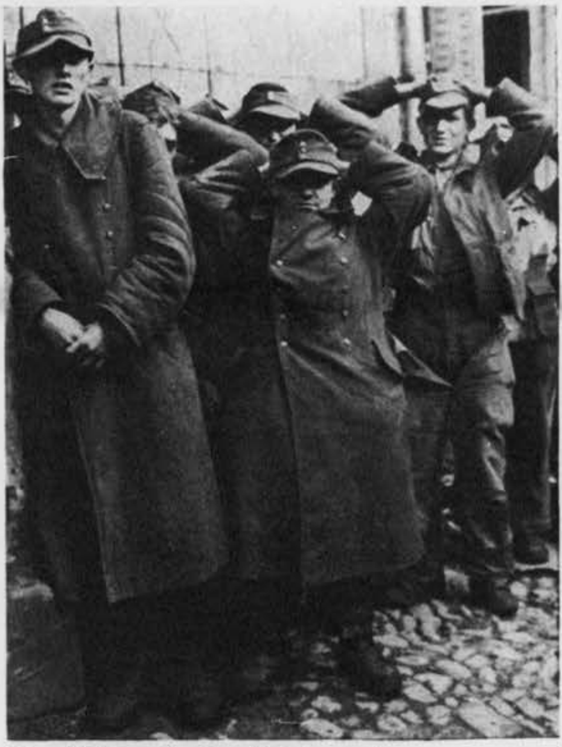
An American officer explains tactics to Chinese soldiers being trained by Y-Force Operations Staff in China, using a scale model of the traditional Chinese wall fortifications.



The American aviator being carried out of the jungle in this picture jumped from a disabled P–51 over North Burma and spent 45 days in the Burmese wilderness before being rescued. He is being carried by U. S. Army Officers.



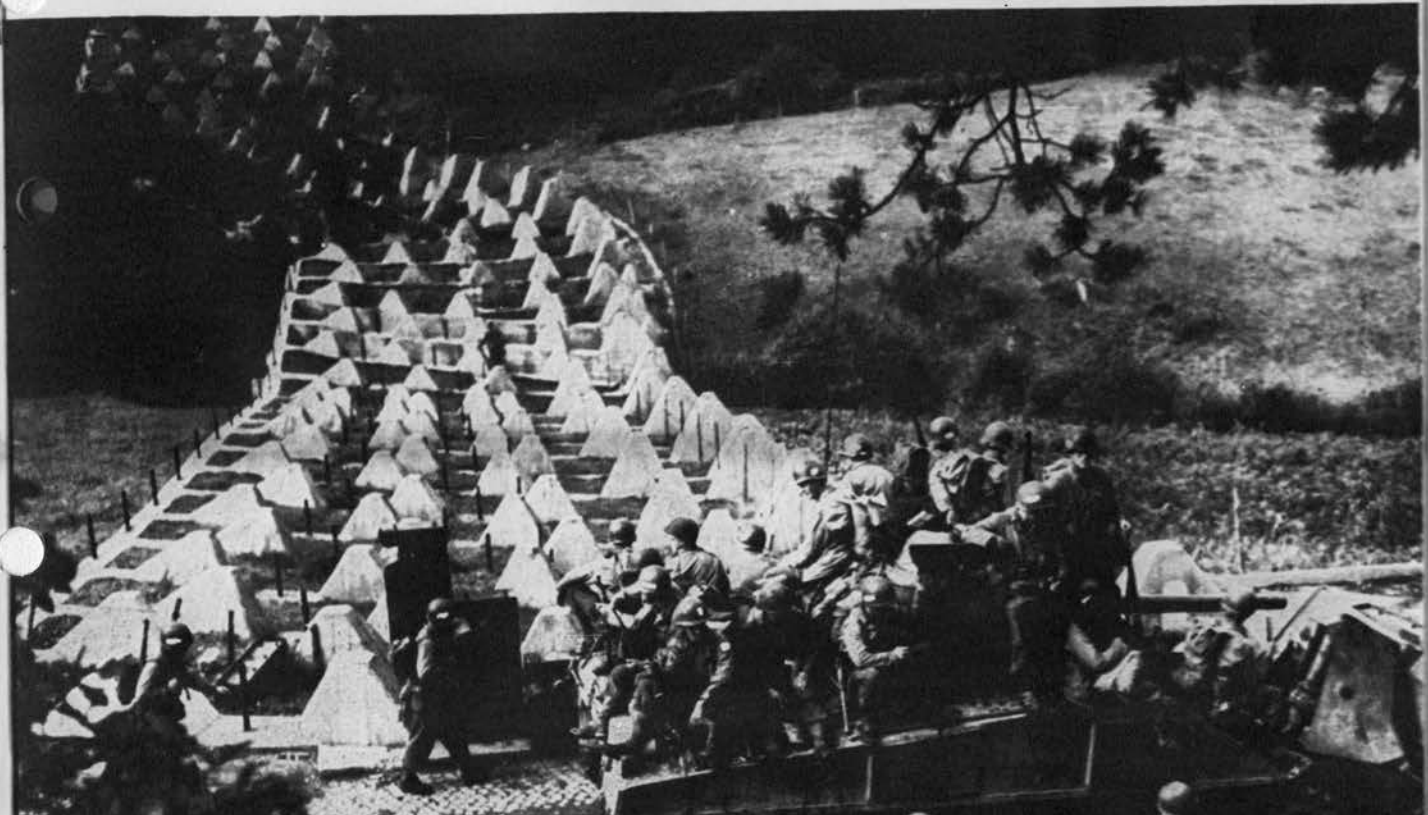
A weary American infantryman digs into his first hot meal after 15 days of siege at the town of Hurtgen, Germany. The battle line is only a very short distance away.



The official caption described these prisoners as a group of Jerry "Sad Sacks." They were captured by a Japanese-American combat team in the Bruyeres area of France.

Right: A World War I memorial caught by the photographer as if the French soldier in the statue were actually beckoning to the American tank destroyers on their way up to the front lines in France. Some damage is seen at the base of the statue, but the figure appears to be unscathed.

Below: A break in the Siegfried Line, in the vicinity of Roetgen, Germany. American foot soldiers and tanks pass through in pursuit of the Germans. The white formations in the background are the Siegfried Lines' anti-tank "dragon's teeth." The Siegfried Line has posed for many American pictures since this one.



Combination rear view and standard screen projector used at Fort Myer Station Hospital. The lower part of the wheeled stand has space for film cases. The equipment is handled by a patient at the hospital.

WHERE THE FILM GOES

Army film distribution is an operation with which photographic personnel should be familiar. It is helpful to the cameraman or the film editor to know where his product goes. Military films—which means Combat Bulletins, Army-Navy Screen Magazine, and others—go out to Army personnel through two main channels:

Training material is stocked in the various film libraries maintained by posts, camps, and stations. Combat Bulletins and historical films like "Attack—the Battle for New Britain," are given the widest possible distribution through the oversea circuits of the Army Pictorial Service, Distribution Division, operating as the Oversea Motion Picture Service.

These circuits are set up primarily to distribute 16-mm entertainment pictures contributed by the motion picture industry for free showing to oversea military and naval personnel. World premieres of such films as "Marriage Is a Private Affair," "Conflict," "Devotion," "Rhapsody in Blue," and "Saratoga Trunk," to name a few of the more recent pictures, have been held overseas as a result of this arrangement. Increasing importance, however, is being given to Army films on these circuits, without in any way decreasing the flow of entertainment pictures (three a week). Distribution personnel must be prepared to provide the same fast-moving facilities for specially made, highly important military film documents whose value very largely depends on the speed with which they reach the fighting men.

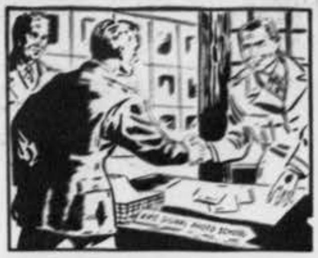
The top picture on the opposite page shows a mobile projection stand and rear view projector used at the Station Hospital, Fort Myer, Virginia, to present entertainment, informational, and instructional motion pictures to patients. Hospitals are important among the agencies served by the distribution system of Army Pictorial Service. It will be noted that in the picture a patient is running the projector. That is a phase of the Army film operation which serves a double purpose, for the patients who are trained to run the machines are men who require the mild exercise. For them, the film itself is only part of the fun; projecting is part, too.

THE
BAYONET
FIGHTER

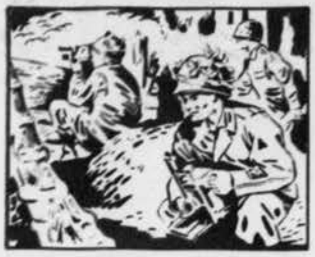
Training camp screening of an Army film. Training films are distributed all over the world by Army Pictorial Service.

An overseas showing of a 16-mm Hollywood film. The screen is mounted in a standard Army truck.

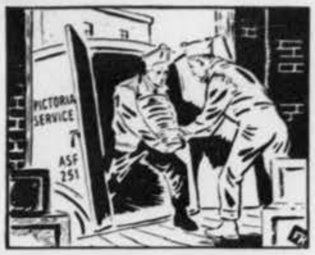
APS . . . THE STORY BEHIND THE PICTURES



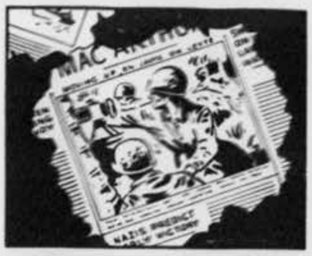
1. Sgt Doakes and Cpl Jones graduate from APS Photo School, draw their equipment and



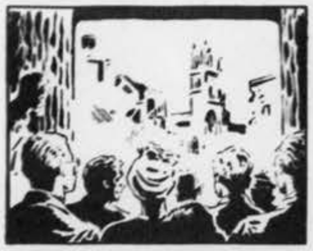
2. Take combat photographs "somewhere in the Pacific"—at least that's what their APS V-Mail says.



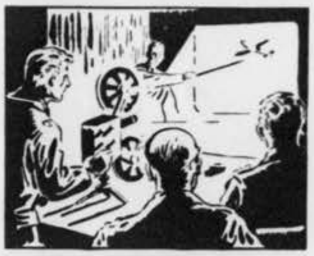
3. Their film comes back to APS, still pictures to Washington and motion pictures to SCPC.



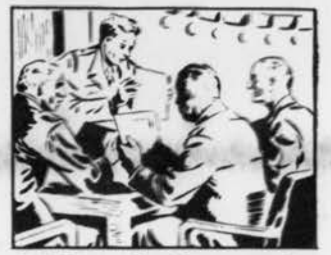
4. This one of Jones' stills released by the Bureau of Public Relations for the press.



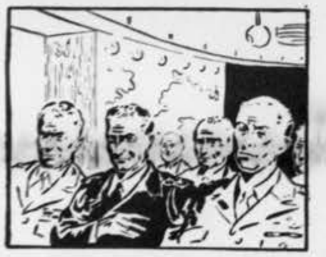
5. This is a Doakes shot released by BPR for motion picture newsreel showing to the public.



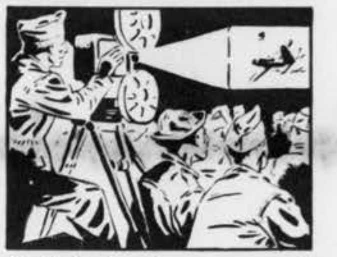
6. But this other Doakes material is shown only to the War Department at a staff screening.



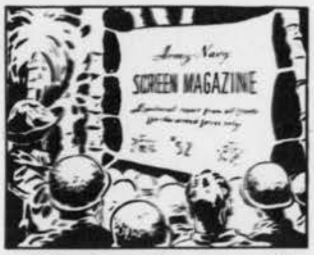
7. Military Intelligence studies the still and motion pictures. The camera is a prime source of information.



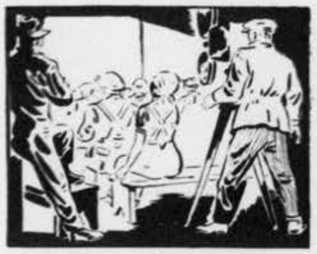
8. Here is a military audience studying an APS campaign report which utilizes Doakes' film.



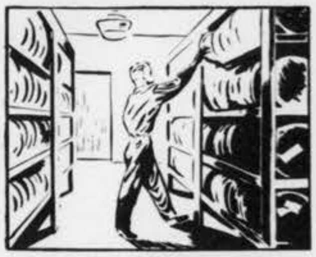
9. Doakes' motion pictures and Jones' stills also become training aids helping to make better soldiers.



10. The Army-Navy Screen Magazine utilizes some of Doakes' footage for a report from the fighting front.



11. And war plant workers see his film in an industrial incentive picture to step up production.



12. In the APS libraries Doakes' motion pictures and Jones' still pictures are filed for future use.

★ U. S. GOVERNMENT PRINTING OFFICE: 1945—636596

Pol Bk Conc Phot

[redacted]

HEADQUARTERS
SOUTH PACIFIC BASE COMMAND
APO 502

MEMORANDUM)
:
NO. 15)

28 January 1945.

OFFICIAL PHOTOGRAPHY

1. The Commanding General, South Pacific Base Command, is responsible for the formation and supervision of policies involving official photography within this command. The official photographic mission of this command is to convey information on combat and field operations to the War Department; to provide the theater commander with information of tactical, technical or strategic value; to provide staff agencies with information on personnel, materiel, conditions and technique; to provide new films and pictures for release to the public; and to establish appropriate photographic historical records. Requests for decisions concerning phases of photography not covered by this memorandum will be submitted to this headquarters, attention the AC of S, G-2.

2. Processing and handling of official photography:

a. The general photographic laboratory at APO 502 is responsible for the processing and custody of all official photographs made by Signal Corps photographers on duty with units assigned or attached to the South Pacific Base Command, and the processing of film exposed by other official photographers assigned to units of this command. An auxiliary photographic laboratory will be operated by the Signal Corps at APO 709 to supplement the service of the general laboratory.

(1) Promptly upon fulfillment of local requirements, the auxiliary laboratory at APO 709 will forward to the general photographic laboratory at APO 502, the negative, caption and two (2) file prints of each official photograph processed. The following address will be used: "Officer in Charge, Signal Corps Photographic Laboratory, APO 502".

(2) The operation of laboratories and the activities of Signal Corps photographers within the South Pacific Base Command will be in accordance with the provisions of War Department Pamphlet No. 11-2, dated 20 April 1944, subject: "SOP for Signal Photographic Units in Theaters of Operation".

[redacted]

b. Upon approval of the Commanding General, HUSAFPOA, units for which War Department Tables of Organization and Equipment provide organizational photographic laboratory equipment may establish special laboratories for the handling of a specific type of official photography. Applications, to be submitted through channels, will state the exact types of photographs to be exposed and processed in laboratories of the units concerned.

c. Exposed film will be returned expeditiously through command channels to the Army laboratory which normally processes film for the unit concerned.

3. Safeguarding military information.

a. Commanding officers of units authorized to establish and maintain photographic laboratories (Par 2, b, above) will be responsible for the safeguarding of classified information contained in negatives and prints in their custody.

b. All photographs taken by official photographers will be classified by the AC of S, G-2, this headquarters, except that photographs processed by the auxiliary laboratory at APO 709 will be classified by the AC of S, G-2, Island Command, APO 709, in accordance with the provisions of AR 380-5, as amended, and with the following restrictions:

(1) All exposed negatives from which prints are made will be marked according to classification, as prescribed by AR 380-5. Markings will also include numbers indicating the year exposed and the number of the individual negative together with a symbol designating the laboratory. No prints will be made from unmarked negatives.

(2) Aerial negatives will be marked as prescribed in AAF Regulation 95-7, 27 January 1944.

c. Prints from classified negatives will be used for official purposes only.

d. All exposed but undeveloped film will be classified as confidential matter unless it is known to contain matter of higher classification, and will be handled in a manner commensurate with the classification assigned.

e. Photographs taken by other than official Signal Corps Photographers, will be marked with the proper classification, as set by classifying officers, at the Army laboratory to which they are submitted for processing.

[redacted]

4. Requests for official photography:

a. Requests for aerial photographs will be submitted in accordance with Memorandum No. 177, this headquarters, dated 25 October 1944.

b. Requests for official ground photographic work, except for publicity purposes, will be made to this headquarters, attention Signal Officer; USAF, APO 708, attention Signal Officer; or Island Command, APO 709, attention Signal Officer.

c. Requests for pictures for publicity, public relations or similar use will be made to the Island or Base Commander concerned, attention Public Relations Officer.

d. Requests for ground photographic work by units of AAFPOA will be submitted to that headquarters.

e. Requests for photography for historical, training and morale purposes will be submitted to this headquarters, attention Signal Officer. Commanders concerned will disapprove requests for photography of subjects which, in their opinion, have no official value or which have been extensively photographed previously and from which no further value could be derived.

f. All requests for photographic assignments and laboratory processing will be prepared on a standard form, attached as Inclosure 1, with all appropriate information entered. Requests for laboratory work, including prints of official photographs required for records and reports, will limit the quantity to the minimum number consistent with actual needs. Additional prints will not be prepared for distribution to personnel.

g. Units which have assigned personnel designated by this headquarters as classified military photographers will direct photographic work of such photographers.

5. Photographers are classified according to the nature of their activities, as shown below:

a. Official Photographers.

(1) Military. An official military photographer is a member of the military service whose current assignment under existing Table of Organization and Equipment provides photography as a principal duty; or who has been designated as such by the Commanding General, USAFPOA, or the Commanding General, South Pacific Base Command. The number of official photographers will be limited to those actually required to do official work, and applications for designation and accrediting will indicate the Table of Organization assignment, or other special reason therefor.

[redacted]

(2) Civilian. War correspondents, technicians and other civilians serving with the armed forces may be designated as official photographers by the Commanding General, South Pacific Base Command, when the photographing of operations, or of classified subjects, is an appropriate part of their official duties.

b. Unofficial photographers. An unofficial photographer is a member of the military service or a person otherwise under military jurisdiction whose activities are limited to taking pictures of unclassified subjects.

6. Photographic Passes.

a. Effective 15 February 1945, all U.S. Army Photographer's Identification Cards issued prior to 1 January 1945 by this headquarters or Headquarters USAFPOA are cancelled.

b. Photographer's Identification Cards will be issued by this headquarters to official photographers upon receipt of application through channels. Each application, to be made on form attached as Inclosure 2, will be accompanied by a full-face photographic negative, preferably 1 x 1¼ inches.

c. The use of these passes for obtaining personal photographs will result in their cancellation and disciplinary action.

d. Commanding Officers concerned will instruct guards and other persons authorized to check passes to honor only those passes issued by this headquarters or by Headquarters USAFPOA after 1 January 1945.

e. Holders of photographic passes issued under provision of Par 3, Memorandum No. 178, this headquarters, dated 25 October 1944, will be issued new passes upon presentation of present pass with photographic negative.

7. Memorandum No. 178, this headquarters, dated 25 October 1944, is rescinded.

By command of Major General GILBREATH:

E. C. JOHNSTON,
Colonel, GSC.,
Chief of Staff.

OFFICIAL:

J. M. GLASGOW,
Colonel, AGD,
Adjutant General.

2 Incls:
  Incl 1 - Request Form for Work.
  Incl 2 - Application Form for Card.

DISTRIBUTION "B"

[redacted]

DATE ____________________

SUBJECT: Request for Official Photographic Work.

TO : Signal Officer, Hq. SOPACBACOM (USAF, APO 708; Island Command, APO 709)

1. Organization requesting work ______________________________

2. Type of Work:

ASSIGNMENT

Photographer ____________________

Subject ____________________

Photog. will report to ____________________

____

Location ____________________

Time ____________________

Remarks ____________________

____

____

____

____

LABORATORY

Film Processing:

4x5 __________ Rolls __________

Contact Printing: Quantity ______

Remarks ____________________

Projection Printing: Quantity ______

Remarks ____________________

Negative numbers if Signal Corps photos ordered:

3. **PRIORITY:** ☐ Urgent ☐ Normal ☐ Whenever possible

4. Purpose (WD instructions require forwarding to US, negatives of certain types of photographs, i.e. Those released to the press; used in official reports, etc.):

____

____

____

5. I certify that the photographic work ordered is required for essential official purposes.

To be signed by officer requesting work:

Signature ____________________

Rank __________ Branch __________

Orgn __________ Tel. No __________

Inclosure 1

[redacted]

APPLICATION FOR
PHOTOGRAPHER'S IDENTIFICATION CARD

NAME: ______________________________ ASN ____________
Last First Initial

RANK: ____________________ BRANCH: ____________________

ORGANIZATION: ______________________________

ASSIGNMENT OR DUTY: ______________________________

STATE AREA IN WHICH CARD IS EXPECTED TO BE USED: ____________________

____

DATE PHOTOGRAPHED: ____________________

PERSONAL IDENTIFICATION:

Age ________ Weight ______ Color of hair __________

Height ______ Color of eyes ____________

DATE __________ SIGNATURE OF APPLICANT ____________________

APPROVED: ____________________
Commanding Officer

DO NOT WRITE IN THIS SPACE

APPROVED ____________________ by ____________________

PASS NUMBER ____________________ DELIVERED ____________________

DATE CARD RETURNED ____________________

Inclosure 2

[redacted]

ARMY PICTORIAL SERVICE [redacted]
STILL PICTURE SECTION

PHOTOGRAPHS RECEIVED FOR LIBRARY: 1945	JULY	AUGUST	SEPT.	OCT.	NOV.	DEC
EUROPEAN THEATER	6182	6838	3939			
PACIFIC-ASIATIC THEATER	8855	5021	7358			
AMERICAN THEATER	53	30	96			
COLOR PRINTS	14	127	269			
TOTAL FROM OVERSEAS	15104	12016	11662			
TOTAL FROM CONTINENTAL U. S.	344	341	485			
GRAND TOTAL RECEIVED	15448	12357	12,147			
TOTAL IN "SC" FILE BEGINNING OF MONTH	207912 ✓	209765	210685			
TOTAL IN OPERATIONAL FILE 1ST OF MONTH	200569	213252	226897			
TOTAL IN COLOR FILE BEGINNING OF MONTH		610	1058			
PLACED IN COLOR FILE		448 ✓	none			
SELECTED FOR SC FILE	1853	920 ✓	638			
SELECTED FOR OPERATIONAL FILE	12683	13645 ✓	13524			
PLACED IN CLASSIFIED FILE	333	179 ✓	41			
TOTAL SELECTED FOR FILE	14869	15192				
TOTAL IN PORTRAIT FILE AT END OF MONTH	12581	12850	13039			
TOTAL IN LIBRARY AT END OF MONTH	452554	468016	482408			
PHOTOGRAPHS REQUESTED FROM LIBRARY						
ARMY AIR FORCES	539	1090	264			
ARMY GROUND FORCES	1238	4983	1395			
ARMY SERVICE FORCES	19183	17634	15044			
BUREAU OF PUBLIC RELATIONS	13784	16542	14987			
PUBLIC	2376	2184	2490			
OTHER GOVERNMENT AGENCIES	9772	9384	7215			
OFFICER'S PORTRAITS	471	484	1179			
TOTAL	47363	52301	42574			
AUTOMATIC DISTRIBUTION						
ARMY SERVICE FORCES	3724		3008			
ARMY GROUND FORCES	4384		1765			
ARMY AIR FORCES	581		151			
GENERAL STAFF, WAR DEPT.	980		36			
ARMY-NAVY LIQUIDATION COMMISSIONER			27			
NAVY DEPARTMENT	45		99			
INFORMATION & EDUCATION DIV			41			
AMERICAN RED CROSS			none			
TOTAL	9714	8424	5127			
THEATERS	408	439	252			
BPR SPECIAL RELEASES	167	106	131			
PERSONNEL IN SECTION						
OFFICERS	6	6	6			
CIVILIANS	42	43	43			

[redacted]

APPENDIX M

HEADQUARTERS FIRST U. S. ARMY SIGNAL SERVICE
APO 230 U. S. Army

30 December 1944.

STANDING OPERATING PROCEDURE
FOR
SIGNAL PHOTOGRAPHIC COMPANY

1. APPLICATION. This Standing Operating Procedure is designed to serve as a guide for the operation of the Signal Photographic Company of the First United States Army in a static situation or in tactical operations.

2. MISSION. In order of priority, the missions of the Signal Corps Photographic Units are to make motion and still pictures which will:

a. Convey military information of combat and allied operations in the field to the Local Commander, Theater Commander and War Department.

b. Provide the P and PW Divisions with photographs of news value for release to the public.

c. Furnish a historical pictorial record of the war.

d. Provide a photographic identification service.

3. ORGANIZATION. a. The Signal Photographic Company is an organic part of the First Army Signal Service, under the command of the Army Signal Officer who directs its activities through his Photographic Officer. It is organized into a Headquarters Platoon, fourteen (14) General Assignment Units, one (1) Laboratory Unit and one (1) Identification Unit.

b. Headquarters Platoon. Headquarters Platoon, to be located in the bivouac area of the signal operations company serving the command echelon, will perform the duties associated with administration, supply, mess and camera repair, and coordinate the activities of the photographic and laboratory units. The Executive Officer will command and administer the Headquarters Platoon.

(1) Personnel Section will distribute personnel and company records, allied papers and necessary correspondence between

[redacted]

all echelons, units, the company and higher. It will also be responsible for the coordination of all administrative reports (other than supply) of the subordinate photo units.

(2) Headquarters Section consisting of the First Sergeant, Company Clerk and necessary help will be responsible for reports and housekeeping duties of the Headquarters Platoon. It will be responsible for the guard and security (fire, riot, attack, etc.) of the Headquarters Platoon. It will assist in any function necessary for the proper administration or command of the Headquarters Platoon and the company as a whole.

(3) Camera Repair Section will maintain, repair and check organisation equipment returned to it for maintenance, check or repair. New equipment will be checked and made ready for use before being sent to the units.

(4) Mess Section will operate the mess for the personnel of Headquarters Platoon and such units or members of the Company that may be stationed at or with the Company at any time. It will not be responsible for the messing of Photo Units assigned on DS or TD with Corps or Divisions. It will maintain a completely equipped field kitchen, ready to operate at any and all times.

(5) Motor Section personnel of Headquarters Platoon consists of a Motor Officer, Motor Sergeant, five (5) mechanics (one of whom acts as a Dispatcher in addition to other duties), and six (6) drivers.

(a) Drivers will perform first echelon maintenance, under the supervision of the Motor Officer and Motor Sergeant.

(b) Mechanics will perform second echelon maintenance, under the supervision of the Motor Officer and Motor Sergeant.

(c) All higher echelon maintenance will be performed by Ordnance.

(d) All vehicles will be dispatched properly, with Trip Tickets properly filled out.

(e) All drivers are responsible for completion of Trip Tickets.

(f) All trips will be signed for by the using person.

[redacted]

(6) Supply Section will maintain a level of supplies sufficient to furnish all units of this Command with adequate supplies and equipment to complete missions assigned, in accordance with TBA 11, dated 10 June 1943. Photographic supplies and equipment are critical items in this theater and the greatest care will be taken to conserve and preserve them.

(a) Company Supply will regulate supplies to units. The Army Signal Officer will designate the priority in which units are to be supplied.

(b) Units sent out on assignment will be provided with the equipment designated in the TBA, and with photographic supplies sufficient to operate for thirty (30) days. Requests for additional supplies may be made orally or in writing, and supplies forwarded on approval of Company Commander.

(c) When possible, Corps units will pick up supplies at Company Headquarters to resupply all units within the Corps. Travel by the Divisional units to the Company will be kept to a minimum.

c. General Assignment Unit. The General Assignment Unit normally will be attached to Corps and Division for combat and intelligence still and motion picture photography. Unit will be assigned missions by Corps and Division Signal Officers.

(1) The General Assignment Unit attached to Corps will consist of one (1) officer and a minimum of fifteen (15) enlisted men, composed of the following:

Five (5) motion picture cameraman	(043)
Five (5) still cameramen	(152)
Five (5) chauffers	(345)

Transportation on hand at the Corps Photographic Unit will be five (5) jeeps, one (1) weapons carrier, and one (1) 1-ton trailer.

(2) The General Assignment Unit attached to Division will consist of one (1) officer and a photographic team, composed of the following:

One (1) motion picture cameraman	(043)
One (1) still cameraman	(152)
One (1) chauffeur	(345)

One (1) jeep and one (1) weapons carrier will be used by this team.

(3) The officer in command of photographic units attached to Corps and Division Headquarters will act as Photographic Officer on the

[redacted]

Staff of the Corps or Divisional Signal Officer. The Photographic Officer at Corps Headquarters will, through the Corps Signal Officer, assign photographic teams to lower echelons of command to supplement the units according to the combat situation. In cases of necessity, other Corps units may be called upon to help in covering the photographic situation, or additional photographers at the Photo Company Headquarters may be assigned so far as personnel is available. Photographers when assigned will report to the Division Photographic Officer who will designate which elements of the Division each team will work with. A record will be kept by Division Photo Officer showing which regiment, batallion, company or unit each team was attached to for photographic coverage. The corps unit will furnish the courier jeep for film down to division and division unit will furnish courier facilities for film from lower units.

(4) The General Assignment Unit Officer will report to the Signal Officer of the Organization to which the unit is attached, and will make arrangements through him for quartering and messing the men in his unit with the Headquarters Company of that organization.

(5) The officer and the enlisted men of the General Assignment Unit will not be given any duties that interfere with their photographic duties.

(6) The General Assignment Unit Officer will insure that the men and equipment of his unit are ready at all times to perform the photographic missions assigned to the Unit.

(7) All still and motion picture film exposed will be sent by fastest means available to the Army Pictorial Service, London Laboratory, U.K. Base, APO 413, directly from the field unit. Still pictures made at the specific request of Staff members will be sent to the Photo Company Laboratory for processing if speed is essential or the subject has no apparent value to War Department. This should be held to a minimum.

(8) Preventive maintenance of all General Assignment Unit equipment will be stressed and frequent inspections made by the Unit Officer.

(9) Broken or damaged equipment will be returned to Company Headquarters for repairs. No cameraman will perform other than first echelon repairs.

(10) CAPTIONS MUST ACCOMPANY ALL FILMS...WHO--what--where--when--how--photographer's name and organization, and time film was exposed. Duplicate captions will be forwarded to the Army Photographic Officer.

(11) Daily reports on photo coverage will be submitted before midnight by each unit officer. Messages should be sent by TWX but in

[redacted]

cases where there are no TWX facilities, report will be filed by any other message center means available. The non-commissioned officers in the units should be well informed of any necessary action in case unit officer is not available, i.e., reporting unit coverage, casualties, sending captions, courier of film, etc. Following is a sample message with information as required by headquarters:

> To Sig O First Army (Attn Photo O) information copy to Sig O V Corps (ATTN Photo O) 200 ft Assault of Paris, Cook. 400 ft French Refugees in Paris, Cravens. 6 stills, Assault of Paris, APS, Carpenter. 3 stills CP areas, Co. Lab., Carptnter. New Coordinates R-999076. From CO, Det R, Lt. J. J. Smith

d. Laboratory Unit. The Laboratory Unit will be established at Army Main Echelon and will provide processing service for still photographs within the limitations imposed by combat conditions. Motion picture film will continue to be processed by the Army Pictorial Service in the United Kingdom until this agency is transferred to the Continent. Film will be transmitted to the processing centers indicated above on the day that it is exposed. Arrangements will be made for the collection of film from photographers in time to connect with the scheduled dispatch service. Film to be processed by the Company Laboratory will be transmitted via established message centers. Necessary files and records will be kept showing disposition of films.

(1) Processing, routing, distribution and records.

(a) Three or more contact prints will be made of each negative, stamped "confidential until re-classified by censor", and distributed as follows: one or more prints, as requested, to G-2 or G-3 Section of Corps or Division ordering work; one print to Company file; one print to Army Signal Officer.

(b) A work order register will be kept showing all work order numbers, negative numbers, prints made, unit and organization concerned, subject matter, date received and date completed.

(c) Six contact prints of all pictures used by Army Pictorial Service will be furnished to the Signal Officer, First U. S. Army. The distribution of these prints will be: one print for file of Army Signal Officer; one print for file of Signal Photo Company; one print for Corps and three prints for Division (in case of pictures made by Division Photo Team); one print for Division and three prints for Corps (in case of pictures made by Corps Photo Team). These file prints are furnished to the Corps and Division Signal Officer and will be distributed at his discretion to the Staff Sections. When units are reassigned they will not take any file prints with them.

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(2) Motion Picture Work.

(a) Exposed motion picture negatives will be forwarded by fastest means to Army Pictorial Service, London Laboratory, U. K. Base, APO 413, directly from the field unit.

(b) Each roll will contain complete "Dope Sheet" on outside of can.

(c) Cinex strips and critiques will be returned to units by Army Pictorial Service.

e. Identification Units. The Identification Unit will be employed for taking official identification photographs, either of military personnel or prisoners of war.

For the Signal Officer:

/s/ V. R. Pogue
/t/ V. R. POGUE
Colonel, Signal Corps
Executive Officer.

A CERTIFIED TRUE COPY

/s/ Vernon R. Larson
/t/ VERNON R. LARSON
Capt. Signal Corps,
Adm and Pers O.

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SIGNAL SECTION REPORT ON LESSONS LEARNED, ITALIAN CAMPAIGN

7 July 1945

****

E. Photographic.

(1) The photographic problems in Italy arose mainly from sheer geographical considerations, rugged mountainous terrain, lack of lateral roads, and an ever expanding area to be covered as the campaign progressed.

(2) The history of the Italian Campaign has been recorded on some forty thousand still pictures, and approximately a million feet of motion picture film. The entire Campaign was largely made up of alternate active and inactive periods. The fighting during the static periods consisted mainly of night actions, which rendered coverage of actual combat impossible to secure.

(3) Photographic coverage of combat operations should not be conducted in a haphazard manner, but carefully planned so that the results present a well-rounded history of each operation and its relationship to the campaign as a whole.

(4) Generally, the more troublesome photographic problems faced in Italy have been external rather than internal. The major problems can be attributed to the lack of clarification of the exact authority over Signal Corps photography by the Army Pictorial Service, the Bureau of Public Relations, and other War Department Agencies. There have been numerous attempts on the part of Army Public Relations officers to exercise control over photography, and to pass judgement on what is, and what is not, to be emphasized in photographic coverage. It has been assumed within Fifth Army that Signal Corps photographers are authorized to cover any event of military or historical significance occuring in the theater. News coverage, while of the utmost importance, is but one aspect of the photographic mission, and it is the responsibility of the photographic officer to evaluate all coverage to achieve a satisfactory balance in all departments. There have been repeated instances, of interference with photographers covering such stories as the execution of spies, enemy atrocities, and war criminals. The authority for

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control of photography should be defined by War Department regulations to implement Signal Corps control over photography and the photographic policies in all theaters of operations, as well as the authority, duties, and responsibilities of the army or theater photographic officer should be defined and implemented (now inadequately covered by WD Pamphlet No. 11-2 of 20 April 1944). All ground forces photograph [Sic] in any theater or army should be centralized and controlled by the photographic officer.

There is urgent need for greater cooperation and stimulus from Army Pictorial Service and the Bureau of Public Relations. The life of the average combat photographer is a hazardous one, and personal morale is of the utmost importance. Yet time after time, the photographer will ask, "Are my pictures being used?" This is particularly true of still photographers, since no critiques on their work are sent out. It is urged that steps be taken to inform "still" men of the value of their work in terms of publications, the press, exhibits and the War Department.

Most photographic replacements arrived only semi-trained as photographers, and with no combat training whatsoever. This lack of training has proved both costly and tragic in failures and casualties. Stamina and physical fitness should be emphasized, and the candidate for combat photography should be pre-conditioned to meet the hazards of the forward areas.

(5) As early in the Italian campaign as November 1943, a survey of photographic problems and conditions made it clear that the T/O & E's 11-37 and 11-500, under which photographic units operate, were inadequate and impractical. Such organizational provisions as Newsreel Assignment Units and similar units had to be abandoned and a simpler and more flexible operational program devised. It was found that large photographic units (such as Production Units), using Weapons Carriers or trucks, could not penetrate the forward areas without drawing enemy fire. These factors led to the establishment of the three man combat photo team,

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consisting of a still photographer, a motion picture cameraman, and a driver, and using a 4x4 1/4 ton truck (jeep). Such teams could go far forward with a minimum risk of drawing enemy fire. Operational requirements dictated the employment of drivers, freeing photographers for their missions. The driver protected the vehicle and supplies, acted as courier, was responsible for the maintenance of the vehicle, and enabled the photographers to carry out a sustained mission without having to commute to the photographic company, often many miles to the rear.

Two combat photography teams were usually attached to an active division, one to an inactive division or lesser unit in the field. They reported to and received the cooperation of the division Signal Officer, and worked closely with G-2 and G-3 in obtaining vital tactical information.

(6) Tactical and geographical considerations dictated the establishment of Photographic Liaison Officers with Corps, direct representatives of the army photographic officer, working with the corps Signal Officer as well as G-2 and G-3. Their primary mission was to keep constantly aware of plans and operations, and control the tactical disposition of photographic personnel to meet the constantly shifting situation. In this they coordinated with the army photographic officer, achieving a local and an over-all balance in photographic coverage. They also brought a definite forward-area leadership to the combat teams, working out special photographic assignments and personally leading them on missions.

(7) Beginning with the preparation for the crushing offensive launched by Fifth Army on 11 May 1944, tactical commanders found increasing need for photographs of enemy-held terrain. To meet such requirements during the period 1 April 1944 to 1 May 1945, the photographic division of the Signal Section, Fifth Army, secured 2116 low-angle air oblique and ground photographs from which 54,688 enlargement prints were made and distributed to all combat commanders from army to platoon..

The extent to which this service was geared into planning operations is evidenced by the fact that at the time Fifth Army was set to drive from the Northern Appenines [redacted] ja

into the Po Valley, nearly every foot of enemy-held terrain facing our divisions had been photographed and thousands of prints and panoramas were in the hands of troops. This same terrain had also been photographed when covered with snow, and our own lines had also been photographed from the viewpoint of the enemy, so as to determine the vulnerability of our defensive positions.

From the standpoint of photographic operations, the methods employed were simple yet often met with hazards of war. To abhieve the desired results from the air, for example, it was necessary to fly low over fringes of enemy-held terrain well within range of small arms fire. Before the flight, the photographer coordinated the details of the mission with the pilot. The course usually paralleled the objective at an altitude of approximately 2000 feet, and 1000 feet ground distance. The flying speed was about 80 miles per hour. Under these circumstances, the trained still photographer was usually able in one sweep to shoot a series of overlapping photographs suitable for a panorama-type paste-up.

Terrain pictures made from peaks and ground observation posts presented fewer obstacles and a better opportunity for technically perfect pictures. Yet the same hazards of war remained. Here, extreme care was required of the photographer in his approach to the OP, to avoid any breach of security and bring down enemy fire.

No hard and fast rule holds true for air or ground photographs. The number of pictures in a panorama varies with the photographic mission. Generally, a series contains from 3 to 12 pictures with a 25% overlap.

As originally conceived, the service was designed to furnish assistance to G-2 and G-3 in planning future operations. But during the period the service has been available, the uses to which the photographs have been put has increased in direct proportion to the increased demand for them. Instead of making a few sets of each series for staff sections, as originally planned, the distribution prior to the final drive reached a high of seventy 8x10 prints of each negative, excluding army and corps regular distribution.

This quantity of prints appears excessive unless the newly found uses of the pictures are considered. First, it was found that many American soldiers, and in some cases junior officers, had difficulty in reading military maps. But by superimposing grid lines on the panoramic prints, a quicker and more accurate interpretation of the terrain

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could be made. In addition, the distribution of prints so treated gave front line platoon leaders a far more accurate and clear idea of what enemy-held terrain looked like than any map. Enemy defenses, objectives and most advantageous routes of approach could be thoroughly studied. Infantry support elements could be more intelligently directed, and in turn could perform their missions more satisfactorily when annotated photos were utilized as references.

In the use of artillery, terrain prints proved of great assistance in fire direction control, particularly where tanks were used as self-propelled artillery. Each tank crew was supplied a gridded and annotated panorama of the sector in which they were to operate. Thus with the aid of terrain pictures when a barrage was required on a specific objective, a positive identification of the target was easier to establish and the information more easily disseminated to the separate crews.

Another use to which these pictures were put has been in the interrogation of prisoners of war. The percentage of PWs unable to read military maps was surprisingly high. But when confronted with panoramic pictures of familiar terrain, PWs readily identified the location of installations, defensive positions, etc.

To make terrain photographs, the standard PH-104 (Speed Graphic) camera, with the addition of longer lenses, proved most ideal both from the air and from the ground. It was found that a 15 inch lens for ground photography, and an 8 to 10 inch lens for aerial work gave the best results. Filters, K-2 and Aero-2 were used and found helpful in cutting through ground haze which otherwise obscurred the vital details of terrain sought.

Uniform and detailed captions were necessary if users were to be properly oriented and informed. To insure accuracy and completeness, a printed form was made up, calling for the following information: Geographical name of objective, map reference, coordinates of the objective, azimuth from camera in relation to objective, camera position (from air or ground OP), focal length of lens and state of weather. The result of the use of this printed form was complete basic information necessary for most accurate interpretation of the terrain photographs.

To maintain speed in processing and delivery of these terrain pictures, a special semimobile laboratory, devoted

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almost exclusively to this work, was set up at a point best suited to serve the normal requirements of the various units. Special vehicular couriers, supplemented by air couriers, were used between the forward areas and the laboratory. When, because of the rapid advance of troops, it became impractical to move the regular permanent (semi-mobile) laboratory, a converted Air Force Trailer laboratory was sent into the forward areas to bridge the gap in distance and maintain speedy processing. The trailer operated in such a manner at Anzio beach-head and later during the offensive through the northern Appenines.

Photographic SOP requires that all negatives be shipped to the War Department with the least possible delay. However, during the static periods such as Fifth Army experienced during the winter 1944-45, it was necessary to hold the terrain negatives for prolonged periods. Units shifted, were relieved, other changes occurred, and it became necessary to supply reprints. Negatives were therefore held until it was certain that there would be no further demand for pictures of a particular sector already photographed.

For the effectiveness and value of this service, attention is invited to the inclosures written by commanders of the various tactical units that have made use of the terrain photographic service as pioneered and developed in this theater.

(8) Changes recommended from this theater to T/O & E's 11-37 and 11-500 have resulted in certain modifications, clarifications, and compromises. However, the salient points will again be summarized:

a. The arbitrary assignment of grades and ratings for enlisted men according to "the job" has been ignored of necessity. Examination of either T/O & E 11-37 or 11-500 will demonstrate the fact that higher grades and ratings are given to rear area photographers working where no dangers and hardships are involved, while men who are expected and required to go into the combat areas are authorized an average of at least one grade lower per man.

One of the serious problems encountered in the active combat zone is to find photographers who do not always "play it safe", but are willing to expose themselves to secure coverage of battle action. This work requires a high degree of intelligence, as well as nerve and "battle wisdom", and a knowledge of military operations in the combat areas in order to accomplish planned missions. No such extra-technical knowledge nor any such risk is required of rear area or base section personnel Yet the allocations of the grades and ratings is reverse of what should be provided. Men performing combat area photography should be given at least a grade higher than any photographer performing rear area work. It is believed that only by recognizing this fact and providing incentive in the form of ample promotional rewards to courageous cameramen can the desired types of combat coverage be obtained.

b. Under T/O & E 11-37, one captain and 16 lieutenants are authorized a photographic company. In practice, this situation means that a combat photographic officer (or a laboratory superintendent), regardless of how well he performs his duties, can never be promoted beyond the grade of first lieutenant. This has proved to be a serious morale problem, for many junior officers feel that promotional rewards go to officers performing rear area work, especially work in the United States.

It is our firm belief that the importance placed upon photographic work coming from the combat areas, especially, and of the work done by laboratory superintendents, would justify a Table of Organization authorizing a major and at least four captains in each photographic company organized under T/O & E 11-37.

c. Under the present T/O & E's, photographers are authorized carbines or rifles for defensive purposes, and all efforts to change this authorization in favor of pistol, automatic, Cal. 45, have met with failure on the ground that "such weapons are not effective for defensive purposes". This statement has been refuted time and again by photographic personnel in the combat areas, who have found the .45 automatic an effective defensive weapon. The combat photographer's mission is photography, and it has been found that a carbine or rifle is too cumbersome for the photographer to perform his duties efficiently. Experience has indicated that the photographer under stress of front line battle conditions, will discard the cumbersome rifle or carbine in favor of his camera, thus becoming totally unarmed.

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Copy/hhd/6 July 1945

HEADQUARTERS IV CORPS [redacted] Ja

THE COMMANDING GENERAL

2 November 1944

SUBJECT: Operational Ground Photography

TO : The Commanding General Fifth Army (Attn: Sig Off.)
APO 464, U. S. Army

1. During the months since IV Corps became operational, the Fifth Army Pictorial Service has furnished this headquarters and troops operating under IV Corps, many valuable photographs of terrain which have proved their worth for operational purposes.

2. Further exploitation of this service seems highly desirable and practicable in light of past experience, and in view of the fact that the type of photograph produced by APS is such that lends itself to a quick recognition of features on the ground by the average laymen. In short, "a picture is worth 10,000 words".

3. Extensive use has been made, for instance, of oblique photos taken with ground cameras from cubs and commanding vantage points in connection with interrogation of PW's. Captive soldiers of only mediocre intelligence have responded quickly, when presented with this type of picture, by pointing to positions and installations occupied by their units on the ground. The same reaction is not forthcoming in some cases, experience has taught, when prisoners have been questioned with a map or vertical photo.

4. It has been conceived from an actual study of operations on an OP that personnel functioning at such installations would benefit immeasurably if they had photographs of the area to their front, from which they could more efficiently direct fires and other operations. This has been satisfactorily tested by us.

5. The examples cited of how APS photographs have been used for operational purposes merely indicate a field that is still open for development. Its potentialities will be limited only by the imagination of those who seek to take advantage of it and the facilities available to produce the photographs.

6. It is with this realization, therefore, of the value of photography as a visual aid in combat operations, that a recommendation is made that APS be given as one of its missions the furthering of combat operations by this pictorial assistance, and that all necessary equipment be provided to deliver the photos in quantity and rapidly.

WILLIS D. CRITTENBERGER
Major General, U.S. Army
Commanding

Incl #5

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Copy/chp/6 July 1945 HEADQUARTERS II CORPS
APO 19 U. S. ARMY

001.511 (DT) 8 November 1944

SUBJECT: Panoramic Pictures Taken by Signal Corps

TO : Commanding General, Fifth Army, APO, 464, U. S. Army,
(Attention: Fifth Army Signal Officer)

1. Photographs have played an important part in the planning of II Corps operations. During the Italian campaign obliques taken from Liaison type airplanes by a Signal Corps Photographer have been used to great advantage in all phases of planning not only by the Corps Staff but also by subordinate units. These obliques in most cases have been supplemented by panoramic views taken from an observation post on commanding terrain.

2. a. Panoramic views were particularly valuable to this Headquarters in planning the MINTURNO - FORMIA operations in May 1944, where a strong defensive position had to be overrun. They again proved useful during the operation from CORI to ROME in June 1944.

b. Before the start of the offensive against the GOTHIC line in September, panoramic views of the terrain were furnished lower headquarters of II Corps by the attached APS personnel. They proved very helpful in planning operations, supplementing map and aerial mosaic studies.

3. It is believed that, if prints of obliques and panoramic views can be provided in sufficient numbers, these pictures will be of value to subordinate commanders down to include platoon leaders.

4. It is recommended:

a. That photographic section, Signal Corps, be capable of furnishing panoramic photographs and obliques taken from Liaison type of airplanes.

b. Since provision must be made for rapid development, printing, and delivery to lower units, the necessary equipment should be available within the Corps.

/s/ Geoffrey Keyes
/t/ GEOFFREY KEYES
Major General, U. S. A.
Commanding

Incl # 6

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WAR DEPARTMENT
The Adjutant General's Office
Washington

AG 210.31 (4-29-43)OB-S-D-M May 6, 1943

SUBJECT: Field Photography

TO: The Commander-in-Chief,
Southwest Pacific Area;
The Commanding Generals,
U. S. Army Forces in the
North African Theater of Operations;
U. S. Army Forces in the
South Pacific Area;
U. S. Army Forces in China, Burma and
India (Forward Echelon);
U. S. Army Forces in China, Burma and
India (Rear Echelon);
Hawaiian Department;
U. S. Army Forces in the European Theater
of Operations;
U. S. Army Forces in the Middle East;
Alaska Defense Command.

1. Analysis of photographic material currently received from Theaters of Operation involving Ground and Service Force activities shows inadequate use of photographic media and indicates the necessity for an organized procedure in the field to insure that all services obtain the visual aid material essential for field and staff use. Included in such material would be visual reproduction of conditions, tactics, supply problems and operations, and of captured enemy materiel; in addition, material for training films, public relations, historical records, etc. Photographic companies and units are now authorized and several are operating in this country and abroad.

2. In order to effectively direct and coordinate photographic activities in each Theater of Operations in the field, it is directed that a qualified officer with appropriate rank be designated and assigned to the Staff of the Theater Commander, preferably in the Signal Section of the Headquarters, and charged specifically with the staff functions connected with photographic activities.

3. When qualified officers are not available within a theater a request for them should be made to the War Department.

By order of the Secretary of War:

COPIES FURNISHED:
The Commanding General,
Western Defense Command;
The Divisions of the War Department
General Staff.

/s/ J A ULIO
J. A. ULIO
Major General
The Adjutant General

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HEADQUARTERS UNITED STATES ARMY FORCES
PACIFIC OCEAN AREAS
APO 958

EXTRACT 12 June 1945

CIRCULAR)

NO. 91)

SECTION IV

ORGANIZATION OF ARMY PICTORIAL SERVICE. - 1. In order properly to coordinate the photographic activities in the Pacific Ocean Areas, an Army Pictorial Service is established as a staff and operating agency under the Signal Officer HUSAFPOA.

2. Organization. a. The Army Pictorial Service will comprise a staff sub-section in the Signal Office, HUSAFPOA, a central photographic laboratory, an advance photographic laboratory, a central film and equipment exchange, and such photographic installations, activities, personnel, and troops as may be assigned or attached to it.

b. All Signal Corps photographic units and organizations presently assigned to base and other commands will be reassigned to HUSAFPOA. Photographic detachments and teams will be attached to lower echelons of command for specific missions or for indefinite periods as the situation may require.

3. Mission: The mission of the Army Pictorial Service is as follows:

a. The production of still and motion picture material within all echelons of command for use in prosecution of the war. Production in the following categories is established with the following general priority of importance:

Priority 1: Combat and news coverage for public relations purposes.
Operational or tactical uses.
Intelligence use.
Special War Department or HUSAFPOA photographic projects (when indicated)

Priority 2: Training use.

Priority 3: Technical use.

[redacted]

Priority 4: Official record use.

b. Operation of a central collecting, clearing, and forwarding agency for all photographic products produced in the Pacific Ocean Areas, except those produced by Army Air Force units, detachments of Museum of Medical Arts and Sciences, and prints for public relations use.

c. Operation of a film and equipment exchange service to provide training films, orientation films, and projection equipment to all echelons of command.

4. Staff functions: The staff functions of this service are as follows:

a. Planning for photographic coverage of operations.

b. Planning of motion picture and still picture projects.

c. Preparation of policy directives, letters of instruction, and recommendations for action by this headquarters on all photographic matters.

d. Maintenance of close liaison with the Public Relations Officer, Assistant Chief of Staff, G-2, other staff sections of HUSAFPOA, photographic agencies of the Army Air Forces, Navy, Marine Corps, and Coast Guard and subordinate headquarters on photographic matters, and photographic agencies of higher headquarters.

e. Establishment of priorities of work.

f. Preparation of standing operating procedures for all photographic activities and film and equipment exchanges.

g. Supervision of the operation of theater photographic laboratories.

h. Supervision of the operation of photographic personnel, teams, and units operating on the theater level.

i. Supervision of the execution of War Department and HUSAFPOA directives on photographic matters.

j. Supervision of the operation of the Central Film and Equipment Exchange.

k. Supervision of operations of radio-photo teams.

l. Advising supply and other agencies on photographic equipment and supply matters.

[redacted]

m. Technical inspection of photographic and film and equipment operations in lower echelons of command as directed by the Commanding General, USAFPOA.

5. Operating functions: The operating functions are as follows:

a. Investigation and promotion of photographic coverage possibilities by maintaining direct and close liaison and cooperation with public relations news desks and other sources of information.

b. Screening of all requests for photographic work in accordance with theater policies.

c. Assignment of Signal Corps photographers and teams and arrangements for necessary cooperation, transportation and similar matters.

d. Direction of all Signal Corps photographers, cameramen, and teams operating on theater level.

e. Operation of film processing and printing facilities for HUSAFPOA and other headquarters as directed.

f. Receipt, shipment, and delivery of film and photographic products, except Army Air Force products and prints for public relations purposes.

g. Establishment of priorities of work in those cases where priorities have not been established by higher authority.

h. Operation of Central Film and Equipment Exchange distributing training films, orientation films, special films, 16 mm projection equipment, and projection accessories for use of HUSAFPOA troops and film and equipment exchanges serving lower echelons of command. The distribution of entertainment films remains under control of Special Services.

i. Maintenance of records on the distrubution and allocation of all projection equipment within HUSAFPOA.

j. Operation of radio-photo facilities.

(320.2POA)

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BY COMMAND OF LIEUTENANT GENERAL RICHARDSON:

[redacted]

CLARK L. RUFFNER
Major General, GSC
Chief of Staff

OFFICIAL:

/s/ Ernest E. McMahon
ERNEST E. McMAHON
Colonel, AGD
Acting Adjutant General

1 Incl
Table

DISTRIBUTION: "C"

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ARMY PICTORIAL SERVICE
STILL PICTURE SECTION

PHOTOGRAPHS RECEIVED FOR LIBRARY:	1942			1943											
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
European Theater												4535	3750	4401	4382
Pacific-Asiatic Theater												3351	2814	2719	3823
American Theater												953	271	386	358
TOTAL from Overseas	2034	1544	2475	3580	6156	4729	7901	5633	7136	5063	9749	8839	6835	7506	8563
TOTAL from Continental U.S.	5785	4173	4382	3364	3572	6307	4733	3873	7034	5892	6655	3235	2582	3916	1748
GRAND TOTAL RECEIVED	7819	5717	6857	6944	9728	11036	12634	9506	14170	10955	16404	12074	9417	11422	10311
Total in "SC" file 1st of Month	143159	145537	148354	150367	151909	163120	165952	168382	171485	173294	175105	177847	179149	180033	18086
Total in Tempo file 1st of Month (estimated)	No tabulation kept on this total..														
Total selected for "SC" file										1811	2742	1301	883	828	1248
Total selected for Tempo file										2371	4718	2397	3187	1962	946
Total selected for file										4182	7460	3698	4070	2790	2194
TOTAL in library end of month															
PLACED IN CLASSIFIED FILE(beginning Oct.1944)															
Total held in B.P.R.															
No. from Service Commands destroyed (or returned as of January 1944 or before) sent to WAC Hdqrs.													154	-	3608
No. from Theaters not selected-RETURNED OVERSEAS															
No. classified by B.P.R. - Held in Still Section-Editorial Subsection-															
TOTAL NOT PUT IN FILES - TO BE HANDLED LATER										6773	8944	8376	5347	8832	8117
PERSONNEL in Section															
Officers (1 part time until Dec.24,1942)			1	1	1	2	2	2	2	2	2	2	2	2	2
Civilians					23	25	29	30	31	31	31	31	30	35	36
EXCHANGE OF NEGATIVES:															
Total sent to Air Forces															
Total rec'd from Air Forces															
Total used by BPR for Special Releases				175	70	77	23	88	95	109	29	40	79	77	46
PHOTOGRAPHS REQUESTED FROM LIBRARY:															
Army Air Forces											707	400	243	347	790
Army Ground Forces											1257	1503	5052	1142	1912
Army Service Forces											23894	16126	30145	16767	19620
Bureau of Public Relations											18648	13979	22204	18164	20056
Public											1792	1162	2129	1635	1272
Other Govt. Agencies											1565	24184	13145	13139	8273
Officers' Portraits											210	225	206	247	316
TOTAL FURNISHED on request											48073	57579	73124	51441	52239
AUTOMATIC DISTRIBUTION:															
Army Ground Forces															
General Staff															
Army Service Forces															
Army Air Forces															
Navy Department															
American Red Cross															
VARIOUS THEATERS															
TOTAL on automatic distributions															

	1944												1945							
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.
European Theater	4634	3513	2715	971	906	3549	3592	5154	5336	5928	5653	7755	9365	8213	12081	14888	13885	8744		
Pacific-Asiatic Theater	3895	1749	3017	668	1469	576	1522	726	1289	1459	1443	1528	2424	2244	3319	3761	4711	5794		
American Theater	201	60	47	110	1	0	0	0	0	0	0	0	44	11	5	453	37			
Color Film																251	274	163		
TOTAL from Overseas	8730	5321	5779	1749	2376	4125	5114	5880	6625	7387	7096	9283	11833	10468	15405	19353	18907	14701		
TOTAL from Continental U.S.	3104	1372	2542	2446	3425	1489	1396	1230	1875	845	730	858	733	737	715	450	290	313		
GRAND TOTAL RECEIVED	11834	6693	8321	4195	5801	5614	6510	7110	8500	8232	7826	10141	12606	11205	16120	19803	19197	15014		
Total in "SC" file 1st of Month	182108	184054	186557	187805	189077	189781	190712	191853	193128	194438	195630	196705	197564	199173	201051	202601	203794	205429		
Total in Tempo file 1st of Month (estimated)	58057	60564	69436	93914	96742	100000	103145	106934	11161	114798	117806	123157	128580	136551	148667	158852	170534	186380		
Total selected for "SC" file	1946	2503	1248	1272	704	931	1141	1275	1310	1191	1075	859	1609	1878	1550	1193	1635	2483		
Total selected for Tempo file	2507	8872	24478	2828	3258	3145	3789	3667	4197	2008	5351	5423	7971	12116	10185	11682	15846	14189		
Total selected for file	4453	11375	25726	4100	3962	4076	4930	4942	5507	4119	10748	7665	13677	22715	14270	15128	18110	17067		
TOTAL in library end of month	244618	255993	281719	285819	289781	293857	298787	303729	309236	313435	325259	327527	341204	363919	378189	393317	411427	428494		
PLACED IN CLASSIFIED FILE(beginning Oct.1944)											4322	1383	4097	8721	2535	2253	629	395		
Total held in B.P.R.			801	768																
No. from Service Commands destroyed (or returned as of January 1944 or before) sent to WAC Hdqrs.	2507			906	1179	686	638	370	443	348	406									
No. from Theaters not selected-RETURNED OVERSEAS						42	42	18	135	38	17									
No. classified by B.P.R. - Held in Still Section-Editorial Subsection-	xxxx	5,566	11,399 19,911	2,652 16,303																
TOTAL NOT PUT IN FILES - TO BE HANDLED LATER	7381	--	000	95*	1839*	1538*	1580*	2168*	2993*	4111*	--	2476*	--	--						
PERSONNEL in Section		(6 enlisted men (13 civilians (on T.D.approx.15 days.)									(fr SCPC (5 td)									
Officers (1 part time until Dec.24,1942)	2	3	3	3	3	3	3	4	4	4	4	4	5	5	5	5	5	6		
Civilians	39	37	42	46	43	42	41	39	40	38	36	36	36	40	39	36	38	42		
EXCHANGE OF NEGATIVES:																				
Total sent to Air Forces	194	1447	1865	421	227	372	1	0	0	-	-	-	-	-						
Total rec'd from Air Forces	431	1	6	- 0	0	0	48	161	29	-	-	-	-	-						
Total used by BPR for Special Releases	84	49	81	119	178	262	258	284	234	259	246	235	285	273	290	185	120	82		
PHOTOGRAPHS REQUESTED FROM LIBRARY:																				
Army Air Forces	397	229	100	400	350	806	1045	993	1246	1008	371	491	881	274	405	404	603	217		
Army Ground Forces	4798	3214	1133	1780	5846	2714	5287	2249	1731	1812	2130	2211	3705	3818	1151	1611	2052	2119		
Army Service Forces	23762	17435	22665	18857	25523	22722	27050	28252	18403	12402	29404	11774	15224	19472	19787	12966	13502	14488		
Bureau of Public Relations	18493	20219	12862	11938	23786	19583	18177	28332	22607	20661	21443	20936	24328	21525	26362	19307	19954	15622		
Public	1499	3624	2635	1842	1927	2430	1191	2606	2352	2778	2065	2866	2040	1891	1952	2121	2536	2084		
Other Govt. Agencies	14450	9591	9313	4149	4532	4481	4387	7797	24458	9852	7230	4471	5965	2968	4080	4349	9394	7736		
Officers' Portraits	252	264	432	608	685	565	226	516	519	440	622	805	681	606	661	314	770	676		
TOTAL FURNISHED on request	63651	54576	49140	39574	62649	53301	57363	70745	71316	48952	63265	43554	52824	50554	54398	41072	48811	42842		
AUTOMATIC DISTRIBUTION:																				
Army Ground Forces										6373	1269	1586	6192	4225	6187	6384	6087	5747		
General Staff											566	1212	2452	1118	1877	2567	1297	992		
Army Service Forces											2576	3377	9973	4315	8016	12686	10827	9009		
Army Air Forces											61	75	405	239	577	413	600	128		
Navy Department											45	32	96	78	58	63	65	153		
American Red Cross											241	267	174	36	174	30	39	122		
VARIOUS THEATERS										823	1419	1242	1720	706	473	363	240	224		
TOTAL on automatic distributions										7196	6177	7791	21012	10717	17362	22143	18915	16151		

*These totals are for the month only-not cumulative.

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